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ABSTRACT

This book for parents and child care providers describes a program for home-based, early childhood education that does not use formal, disciplined instruction. The program uses the technique of "incidental teaching," which emphasizes learning activities that occur while children participate in typical daily activities, such as eating, dressing, and playing. The book is divided into 14 chapters. The first four chapters provide background information that form the program's foundation. Chapter 1 discusses techniques to help children build powerful intelligence. Chapter 2 provides general instructions and cautions, such as avoiding pressure and establishing an optimum physical environment. Chapter 3 outlines ways to think and act from a child's viewpoint, and provides examples of the ways in which reinforcement can guide teaching behavior. Chapter 4 describes ways to use household items and educational toys as teaching aids. The next nine chapters provide information for teaching children in the following age groups: the first 10 months; 18 to 24 months; 2 to 3 years; 3 to 4 years; and 4 to 5 years. Each chapter discusses characteristics of the age group concerned, offers practical teaching suggestions, and describes games and activities that use common household items as teaching aids. The final chapter outlines procedures to help prepare children for school, and includes suggestions for teaching directions and games that require abstract reasoning. (MM)

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Terrel H. Bell

A Guide to
Home and Child Care Center Based
Early Childhood Education

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KEYS TO YOUR CHILD'S INTELLECT

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A GUIDE TO
HOME AND CHILD CARE CENTER BASED
EARLY CHILDHOOD EDUCATION

KEYS
TO
YOUR CHILD'S
INTELLECT

Terrel H. Bell
former U. S. Secretary of Education

Practical Applications and Photography
Elam K. Hertzler

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Introduction

There is ample evidence that pre-school children need mind nurturing experiences over an extended period of time. The preponderance of this evidence of the value of early learning experiences continues to build. Indeed, a research project concluded at the University of Arizona in 1992 demonstrated that babies as young as five months can recognize correct and incorrect answers to simple math problems.

Early learning experiences for preschoolers is the number one goal of American education. After extensive hearings by Congressional Committees, Congress enacted legislation supporting programs to provide early childhood education programs that involve parents, guardians, and child care centers. This new federally funded program is intended to give disadvantaged pre-school children a better start in school.

The Head Start program, now in its 27th year of existence, has prepared many children for a successful start in school. Longitudinal studies of the results of this program were so successful that during the budget reduction programs of the Reagan years, Head Start was spared the sharp knife of the Executive Office of the President.

Another federally funded program is Even Start, a sub-program of Chapter I of the Elementary and Secondary Education Act. Congress enacted this program to provide financial assistance to school districts and to encourage them to sponsor programs of home-based early-childhood education in neighborhoods

with low income and educationally disadvantaged students.

Following a meeting of all the nation's governors with President George Bush, six major national goals were unanimously adopted. The first of these is the goal of having all children entering school ready to learn. There has been widespread agreement that all the states muster a major effort to fulfill this first and foremost of all the goals for American education.

This goal cannot be realized without extensive involvement of parents, guardians, and child care center workers in its fulfillment. The schools must reach out to these persons and teach them how to effectively prepare pre-schoolers to be ready for school. Their active participation is indispensable to success.

This book, extensively rewritten (to incorporate the latest research) from an earlier version written by Dr. Terrel H. Bell (U.S. Secretary of Education, 1981-1985) and published by Olympus Publishing Company, has been published by Terrel Bell and Associates to serve as a handbook for parents, guardians, and child care center workers who will have many opportunities to enhance the future potential of millions of preschoolers to become apt learners and successful young scholars. We firmly believe that this simple, practical and inexpensive program of preschool education will increase the levels of intelligence and readiness to learn for millions of preschoolers whose education will mean the difference between success and failure in the fiercely competitive world of tomorrow.

A New Role for the Nation's Elementary Schools

Elementary schools should have the responsibility to teach parents, guardians, and child care providers who work daily with pre-school children the advantages of current research and effective programs to prepare children for learning when they arrive at school age.

All elementary schools should offer parents of preschoolers a comprehensive program of home-based, early-childhood education and development activities.

All elementary school principals and at least one teacher from each school, designated as the lead early-childhood educator and parent liaison, should be taught in a short but intensive training course to provide the leadership for this program. Such a program should be designed to teach and prepare principals and lead teachers to launch the program.

Following the training, each elementary school principal and lead teacher should telephone and/or write to all parents of pre-school children residing in the school attendance area. There should be an all out effort to reach all parents of pre-schoolers regardless of where those children may ultimately go to school. These parents must clearly understand that the information they receive will be important to their children's future success in school even if the child has just been born or is expected in the near future.

During the four or five meetings parents should attend, they would learn about "incidental teaching." They should not be taught to "hold school". Instead, as their children play in the world around them, parents should learn how to actively develop their children's learning capacity and prepare them for school through low-key, non-pressured, incidental, mind-stimulating experiences. Parents should learn how to provide opportunities for developing language, computing and intellectual skills. As the program matures, parents who have used these ideas should be asked to teach other parents.

This type program is an important and useful way to prepare each pre-schooler to go to school ready to learn. This manual provides the necessary content for such an outreach program to parents.

NOTES:

In the interest of avoiding awkward sentence structures, the male and female pronouns will be alternated chapter by chapter and activity by activity throughout the book; it should be understood that either pronoun is intended for either gender.

In the interest of avoiding awkward sentence structures, "parents" will be used to refer to parents, guardians, child care givers and other child care providers.

1 Helping Your Child Build a More Powerful Intelligence

Defining and discussing the idea of intelligence are controversial and difficult. We know that some persons learn very quickly and with obvious ease, and we often refer to such persons as "very bright" or "highly intelligent." We also know that some persons are slow to learn and appear to be limited in what they can learn. It is common to refer to such persons as "slow mentally" or as "disadvantaged learners."

To be quick of mind, to be able to grasp subtle meanings, to understand (comprehend) complex ideas (concepts) are great gifts. Educators refer to students with such abilities as "academically talented" or "intellectually superior."

Intelligence has to do with a person's *mental capacity.* It relates to the ability to learn as contrasted to knowledge or what has been learned. A very bright two-year-old child may have a powerful learning capacity but has little knowledge or wisdom. A powerful intelligence shows the capacity to understand and comprehend . . . and to exercise higher mental functions. A person with a powerful intelligence has the capability of learning at a greater speed than other people and can easily grasp factors in a complex situation. This is not to imply that the most intelligent people are the most ambitious or conscientious, nor that all the desired traits or talents are embodied in a powerful intelligence. An intelligent person may be lazy, cruel, unfair, dishonest, or many other undesirable things, or may be unhappy or unhealthy. We must seek many human traits in addition to intelligence.

Intelligence is a person's mental capacity

Intelligence is, however, a desirable human feature embodying one of the most universal powers a person may possess. All persons regardless of their specialties and unique abilities will be even more capable if they have developed more fully their intellectual powers. A talented musician, for example, is more capable if she has a powerful basic intellect. A person with mechanical or technical aptitudes is much more productive if she is also quick of mind. A person able to work with people is greatly aided in her efforts if she has a powerful intelligence.

Early childhood development in the learning process is desirable for all children

Intelligence opens many doors, just as ignorance prevents progress and opportunity. No matter how bright and quick of mind one might be, she usually wishes that she could learn and understand more quickly and with greater depth. Early childhood, indeed infant development in the learning processes is therefore desirable for all children, regardless of background or ability.

All parents should strive to help their children from infancy build a powerful intelligence. All children should have -- as part of their heritage -- the greatest opportunity to develop all their talents. Fundamental to all other abilities is the development of basic intelligence. This handbook has been written to help parents to help their pre-school children to attain these advantages.

The Power of Parental Love

Parental love will help the child feel secure

As you follow the program in this book, you will grow closer to your child. Parental love will help the child feel secure and emotionally responsive. This is the great strength of home-based, early childhood learning. Only this element -- so essential to all babies and small children -- can be provided in full measure by parents. A warm, intimate, and continuous loving and sharing between parent and child can grow from the parental role as the child's first teacher.

At the outset of our discussion of home and child care center based preschool education, we caution our readers to avoid too much pressure on children. Parents should not sacrifice the child's feelings of security and of being accepted while she is learning to respect

the act of learning. Learning should be brought about naturally in an atmosphere of loving encouragement rather than through demand and pressure. Unusual achievement in terms of growth in the child's understanding is possible in a natural and relaxed setting. That is why we advocate incidental rather than formalized teaching in this book.

A small child can learn while playing in the natural environment of the home

In the pages that follow, the techniques of teaching your child will be blended with the text content. The entire program assumes that a small child can learn while playing and growing in the natural, loving environment of the home. The practical how-to-do-it applications at the end of each chapter, written by Mr. Elam K. Hertzler, an educator with years of experience, should substantially aid the parent to reach that goal which is desirable for the child at each succeeding age level. With his invaluable assistance, we will not only describe the basic ideas but we will present concrete examples of how these concepts can be applied in the daily life of the child. The result should produce a priceless gift for the child and a great sense of accomplishment for the parent.

Critical Role of Parents, Guardians and Child Care Providers

Not long ago, most educators believed that intelligence was almost totally fixed at birth and that quickness of mind or capacity to learn was determined by heredity. A stereotyped mental capacity of a child was universally accepted. It was believed that we should strive to teach a child all we could *within the limits of her capacity, but that we could not increase the basic capacity, significantly beyond the limits inherited at the time of conception.* There have been many debates on this issue, but only in the last few years have facts on this matter become known.

There is strong evidence that human beings can increase their learning skills

We now have strong evidence that a human being's intelligence can be increased. This means more than the simple fact that a normal child can learn to work harder than the above-average child and make up with effort what she lacks in basic intellectual capacity. Environmental factors have much more to do with nurturing intelligence than was expected even a short time

ago. Presently, evidence from research gives us reason to believe that we can increase this basic intellectual power and help the child build intelligence significantly beyond the usually accepted range of the intelligence quotient (IQ).

Recent research by cognitive psychologists reveals that the capacity to learn quickly and with ease can be significantly expanded beyond that inherited at birth, possibly one of the most important educational discoveries of the 20th century. This message for parents and educators brings great hope and heavy responsibility for developing the intelligence of infants. Evidence that the environmental power of the home is more influential than the school places much of the responsibility on the parents.

Basic intelligence is formed in the first five years of life

The emphasis is placed on young children because research tells us that we must bring certain mind-nurturing experiences to children before the age of five years if we are to take advantage of this great new potential. Much of a child's basic intelligence, according to the research, *has been formed by the time school age is reached.* Parents should keep this in mind so that the early months, when the mind is the most impressionable, are used to maximum advantage.

Home vs the School as the Site for Early Childhood Learning

Children lose more than they gain if early education is formalized

The fundamental fact that the home is where early childhood learning occurs has triggered a great debate in education circles. Some psychologists and educators advocate starting public school education at two years of age, claiming that a great opportunity will be lost if we do not start sending our two-year-olds to school where they can avail themselves of this great promise to build their intellects. Many opponents, however, do not agree. Although they recognize the potential, they argue that young children will lose much more than they will gain if we institutionalize or formalize learning this early in life. They argue that in the early months, the child needs the home and the home needs the child. They argue that schools are too bureaucratic and complex to be sensitive to the individualized needs

of tiny tots and that the home will be weakened and too much responsibility placed on the schools. Studies of home and parental influence on learning seem to support this position.

The debate also includes school finance. Some critics claim that it will take untold billions of dollars to educate two- to five-year-olds. It will also take thousands of new school buildings and vast numbers of additional teachers. Opinions of how much government and/or family should do enter this continuing debate. Many parents want the schools barred from ventures in early childhood education, while others demand an immediate response. Some critics say that it will cost more if we fail to reach the struggling learners to give them a chance to build an intellect that helps them achieve their greatest potential. Others claim that it is unfair to reach some and not others and that early childhood education for only the educationally disadvantaged places a stigma on them and deprives the normal child from building her intellect to become a superior child.

The responsibility of early childhood education is in the home

Because of the emotion, the political conflict, and the lack of public finances, it appears that public-sponsored, far-reaching, early childhood education is a long way from becoming a reality -- if indeed it ever will. This places a great responsibility and challenge on the home . . . particularly upon parents who are concerned about their small children and who conscientiously desire to provide the maximum opportunities for them. Many parents eagerly accept the added burden of building the basic intellectual power in young children so that the child may be a superior student -- a bright and creative human being.

The Potential of Home-Based, Early Childhood Learning with Parents as the Prime Teachers

Convert the home into a learning laboratory

Parents should be taught the fundamentals of incidental teaching in the home, of how to recognize and seize upon the fleeting teaching moments in a small child's life. They should learn to teach through joyful and productive play, to apply reinforcement theory (ex-

plained in chapter 3) in the home, to create a process for learning and to stimulate the child's mind for developing cognitive powers.

Recognize opportune moments to teach during the daily contacts with your child

Parents should convert the child's home environment into a powerful learning laboratory so that the child will grow intellectually during those vital first five years of her life. Parents should realize that the opportunity to take full advantage of early childhood intellectual development comes only once in each child's lifetime. Most of it comes before the child enters school.

Demands on Parents' Time

As you read this book, you may become concerned about what may seem to be excessive demands upon your time to do all of the things and carry out all of the activities recommended. You will, however, find that most of the recommended activities to develop cognitive growth in your child can be carried out as you perform other routine tasks in your home. Considerable emphasis is placed upon recognizing opportune moments to teach through your daily contacts with your child while you dress her in the morning, feed or play with her during the day, take her shopping, or put her to bed at night. The techniques are casual; the teaching is incidental and related to the real-life experiences of parent and child.

Keep in mind that most of the recommended activities do not require additional time from busy parents, but more educationally productive use of the usual time spent by parents with their children. Also remember that each child develops differently. Do not be unduly alarmed if your child does not keep up with the recommended activities for the age group cited in this book. Detailed instructions throughout the book will help you bring your child along at her own pace.

Household items can be used as educational toys

Using Common Household Items as Educational Toys

The use of the term "educational toys" as discussed in this book refers to items used as teaching aids and

motivational tools rather than simply as playthings. For purposes of this book, the term, educational toys, includes common household items that are used in play and in incidental teaching. We shall continue to use the term, educational toys to include all objects used by child care givers in their incidental teaching activities.

The applications discussed at the end of each chapter are designed to make use of common household items. They do not require the purchase of special toys.

At the end of each chapter in this book are some practical how-to-do-it suggestions involving the use of common household items as teaching aids. These useful and easy-to-follow instructions will add to the utility and effectiveness of making concrete learning applications of the principles of learning described in the book.

Children need "hands on" experiences as they learn. They need to be able to feel, see, hear, and manipulate objects that will support and reinforce learning. The practical applications at the end of each chapter will be very useful to you in providing these concrete learning experiences for your child.

Reminder:

In the interest of avoiding awkward sentence structures, "parents" has been used to refer to parents, guardians, child care givers and other child care providers.

2 General Instructions and Cautions

Most experts in the field of early childhood development are concerned that children may learn to dislike learning and even develop strong emotional blocks if overly anxious parents and child care workers pressure them to levels of achievement before the children are ready. It is also feared that parents, lacking in professional training, may not recognize the limitations of very small children.

Children may learn to dislike learning if pressured by overanxious parents and child care providers

Avoiding Pressure

Because of often-expressed apprehensions by educators, it is important that parents recognize the necessity of teaching the child when he is ready and when he is motivated to learn. In the suggested games and parent-child activities that will be presented, the child must be the one to determine when he wants to participate. Be sure to avoid pressure. Be sure to observe the child carefully and take advantage of the times when he is interested and wants to participate in the learning activity. Also, be very observant to note when the child has passed the point when the learning activity is productive.

The child must determine the right teaching moment

This key concept of teaching, when the child wants to learn and stopping when his interest is low, must guide the parent throughout the program. The child is entitled to grow and develop happily. He must enjoy his learning activity and develop very positive attitudes

toward learning. (More information on developing positive attitudes will be given in chapter 3 when reinforcement theory is discussed.)

Peaks and Valleys in Learning

There will be high and low points in the child's response to the learning situation.

There will be periods of time in the life of almost every child when he will have a total disinterest in learning activities. There will be other times when he will be highly interested and will eagerly seek opportunities to learn and to be involved in the games and in the use of educational toys. Children go through stages of development which are related to their physical, emotional, and psychological growth. Parents should not be unduly concerned if the level of interest is irregular over a span of time. There will be high and low spots in the child's responses to the learning situation. Wise parents will adapt to these situations without conveying apprehension to the child.

Attention Span

Parents and child care providers must learn to take advantage of high levels of interest and to shift to other activities when interest is low

Depending upon the nature of the learning activity, a child's attention span will vary -- young children become disinterested quickly; they do not have the capability of concentrating for very long. When using educational toys and parent-child games, parents must be carefully observant of the learning situation. They must learn to take advantage of high levels of interest and to shift to other learning activities or postpone the learning activity entirely when the child's attention span is low. Children become restless at certain periods of the day. By observing closely, the parent will learn to distinguish the child's interest level in any particular situation. From that knowledge, the parent should be able to determine when the optimum learning situation has passed. The best learning opportunity for the child will have expired when he is no longer paying attention . . . when he becomes irritable or fidgety or when he starts asking questions not related to the learning situation. At this point the learning activity should be changed, or the entire period for participation in the program should be postponed.

Being observant and understanding of the varied attention capabilities and being able to transfer that knowledge into a shift in activity or a change of pace are very critical skills for a parent to develop. As you work with the child, be conscious of the need to be sensitive to his attention span.

Learning to Enjoy the Teaching-Learning Situation

Parents should engage a child in developmental experiences only when it can be a joyful activity for both parents and child. It is important to recognize that when parents are under stress, it is unwise for them to enter into teaching activities with their children. Most parents know when they feel up to the challenge.

Both parent and child must be ready for a joyful experience together

Timing is extremely important in the development of very young children; emotional circumstances are crucial. Both parent and child must be prepared for a joyful experience together. They must be relaxed, with tension at a minimum level. Parents should recognize this and think about it often. They should review the learning experience after it has occurred and ask themselves if the experience has been pleasant for the child. They should also ask themselves if the atmosphere was relaxed and if there was ample opportunity for pleasant interaction, for laughter and happy responses.

The home-based teaching program should not follow the structured curriculum of the school

The early childhood development program in the home should not in any way follow patterns at school. Preschool children are far too young to have a structured, regular program of instruction patterned after school curricula. Child care givers should therefore not think of themselves as teachers in the formal sense. The entire environment must be natural and spontaneous so that each learning experience developed by the parent and other care givers will carry out the sequential learning activities contained in this program and at the same time permit the child to set the pace.

During the teaching and learning experiences, the parent should play a different "role" from that played during the rest of the day, relating to the child in a mode of relaxed play and conversation. The parent must let each of the child's responses flow naturally

from the previous response. Parents must recognize when to have a great variety of activities and when to seize upon a high-interest point to get a basic concept or a particularly difficult skill across to the child.

Establishing the Optimum Physical Environment

Distractions should be kept to a minimum

It is important for the child care giver to think constantly about the physical surroundings and to establish the optimum environment for enhancing the learning situation. This should vary from one situation to another, depending upon the type of learning activity. Distractions should be kept to a minimum. Child care givers should seek ways of developing the physical surroundings so that they will contribute to the learning situation. A pleasant environment, conducive to learning, should be planned.

Many homes are not sufficiently "child centered," and many children must make too many adaptations and adjustments to the adult mode of living. Bright colors, cheerful pictures and paintings, and child-oriented furnishings will add to the total opportunity to give the child the finest environmental situation during this critical first five years of life. Parents should remember that once these opportune days, weeks, and months have passed, they cannot relive them with the child. They should remember that research tells us that a child gains a very significant and lasting part of his intelligence during those first five years of his life. In this sense, the home is the first classroom and the parent the first teacher.

The home must be a bright and cheerful setting for preschool learning

We urge parents to look at their homes and determine if they are child centered. The priceless years of early childhood will be gone all too soon. Make your homes truly conducive to the maximum environmental circumstances that will nurture the growth of your child to the greatest extent possible. More specific information on the home as a learning laboratory for the child will be presented in chapter 3.

3 Learning to Think and Act from the Child's Viewpoint

Many forces enter into the rearing of a child in the home. During the first five years, childhood experiences will fortify the child with the capabilities to obtain and retain knowledge throughout her life. The "knowledge" experiences are discussed below.

Empathy

Empathy is the imaginative projection of oneself into the being or circumstance of another. Parents should, in the time that they spend teaching the child, try to empathize. Through close observation and practice in watching the response of the child, the ability to empathize can be developed. As you work and play with your child, study her reactions and learn everything you can about her. Strive to understand why she does what she does. The more you know the more effective you will be as a parent and teacher.

As you work and play with your child, study the reactions . . . try to empathize

Reinforcement as a Basic Principle in Teaching

There is likely no other principle of teaching and learning that is more important to the child and to the parent than reinforcement theory -- an awareness that most of the experiences must be successful and reinforcing to the child. Rebellion and dislike for learning will result if this paramount principle is ignored.

Rebellion and dislike for learning result from lack of reinforcement

It is important that parents learn about the principle of reinforcement and how they can use it in helping the child develop a more powerful intelligence. If parents understand this principle and observe how reinforcement can lead a child to desirable or undesirable behavior, they will be more conscious of many actions that unwittingly work against the purposes and outcomes they are seeking. Most human beings persist in doing those things that are rewarding and pleasurable. If, for example, a child cries when she is refused candy and if the parent responds by "giving in," the parent is obviously encouraging an undesirable habit.

A small baby soon learns that crying gets attention -- her way of communicating that she is uncomfortable or wants something. While it would be absurd to recommend that parents ignore crying, it is important that the parent be aware of responses made to crying so that the parent is not unconsciously reinforcing behavior that must be changed or eliminated later in the child's life. Some of this cannot be avoided for it is part of rearing a tiny infant. The point is that the parent should be conscious of this reinforcing behavior and use it to the child's advantage. Not only do you teach by your *actions*, you also teach by your *reactions*.

Parents should use reinforcement to the child's advantage

The positive use of reinforcement calls for rewarding the desirable response and keeping to a minimum (or eliminating where possible) the rewards for undesirable behavior. A reinforcement-conscious parent will be very careful about using negative responses and saying "no" too often. Instead, positive and rewarding responses can be used to lead the child in an affirmative way (rather than negative responses that will drive the child through punishment).

Children have a better self-image if they learn through rewards instead of through punishment

The parent should be particularly conscious in the teaching and learning experiences suggested in this book to use reinforcement theory. Plainly stated, children will have a better self-image if they learn through rewards rather than through punishment. Parents should be careful about saying "No, that is wrong" in an unpleasant voice. This does not mean that children should learn only about their correct responses. Obviously, it is necessary for a child to know when her response is incorrect. The method of communication, however, should convey information that the response

is incorrect in a manner that will minimize negativeness and will lead rather than drive the child.

The child should be praised and encouraged along with being corrected

If, for example, the child misses a key step in a learning game, the parent should emphasize some of the child's previous correct answers at the same time that she learns that she just missed the key question. She should be praised and encouraged at the same time that she is corrected for error. Parents get in the "no" and "don't" habit of communicating with children. This is sadly demonstrated by studies of vocabulary development in young children which indicate that the word *no* is one of the first words spoken by most children.

Parents, in their anxiety to help the child, correct too much and lead and reinforce too little. Strive to use positive words most of the time in your communication with your child. Use the words "no" and "don't" sparingly. If parents are careful in their manner of correction, learning will be a happy experience, and the child will seek more opportunities to be involved in it.

Adjusting the Level of Difficulty

The parent must be very conscious of the "level of difficulty" at which the child is working. Experts on learning tell us that the level of difficulty for a child should be adjusted so that she is making correct responses approximately eight out of every ten times she is asked to respond in a learning situation. This keeps the entire experience "reinforcing" in its outcome and minimizes the number of times that the child has to be corrected and told, even in a positive way, that her response to the learning situation was incorrect.

The level of difficulty should be adjusted until the child can respond correctly about eight out of ten times.

Observing the child's response, the parent should make the question easier or the learning game less difficult if the child is not responding correctly in approximately eight out of ten questions. When educational toys are used, a less difficult or more challenging game can usually be selected to meet the performance level of the child. In the less formal situation -- where the parent is questioning and the child is responding -- the solution is to ask less challenging or more difficult questions. As the parent and child work together, it will become increasingly easy for the parent to adjust the

level of difficulty to meet the child's needs.

Success is contagious. In our eagerness to get the child to move ahead rapidly, or in our concern that she may be behind, it is very easy to push too hard or to move the child to a level of difficulty where her responses are most often incorrect. This is self-defeating and must be avoided at all costs.

The parent should realize that there must be sufficient challenge in the learning situation so that the child is learning, advancing, and attaining a feeling of accomplishment. If the situation is so easy that the child is responding correctly 100 percent of the time, she has already learned the task, and the level of difficulty must be advanced. Parents should remember that the 80 percent correct response principle is desirable. It may not be necessary to measure this precisely in the informal use of educational toys, learning games, and other teaching and learning activities. It is important, however, to be conscious of the fact that most of the responses must be correct and the child must be on a level of difficulty where the parent can genuinely praise her often and reward her for her correct response. Many times throughout the teaching and learning activities of our program, we will urge the parent to be conscious of the use of the power of reinforcement in the teaching situation. This chapter (and particularly this section of the chapter) may need to be reviewed often by the parent in order for the principles of reinforcement to become a natural part of the parent's teaching behavior.

There must be sufficient challenge to cause the child to feel accomplishment

Be sure that you understand the principle of reinforcement. *Make your awareness of the power of reinforcement a guide to your teaching behavior.* The application of this principle may be the most important teaching technique you will ever learn. Your behavior will largely determine the attitude and success of your child in her early childhood education.

Make your awareness of reinforcement a guide to your teaching behavior

Parents should consider the following examples in thinking through how the reinforcement principle can be used in the home to obtain the desired results:

Example A mother decides that her two-year-old is ready for toilet training. She begins by casually placing the child on the toilet at intervals

when she suspects that she is ready for bladder or bowel elimination.

Make the first experience in any situation a pleasant one

Comment The first experience should be a pleasant one. The mother should carefully select the proper time when the child is not sleepy or irritable. Pleasant and optimistic voice tones should be used. Simple and positive explanations should be made. The experience should be very brief. If the act is not successful, the parent should express mild encouragement and approval anyway. If it is successful, the parent should praise the child and encourage her to let the mother know when the physical need is felt for elimination.

Example: A 3 1/2-year-old child keeps begging to eat between meals. The parent has determined that the child's nutrition is adequate and that she should not be hungry an hour or two after she has eaten. The child is persistent and increases the pressure until the parent gives in "just to keep her quiet."

Comment: This is applying reinforcement to develop undesired behavior and bad eating habits. The child learns from the success of pressure and persistence that the parent will eventually give in to her demands. The behavior of whining and the habit of eating between meals are unwittingly taught by the parent through misapplication of reinforcement theory.

Apply the reinforcement principle in desirable, not undesirable, circumstances

Example: A parent desires to develop number discrimination skills through use of an educational toy that builds this capacity. When the atmosphere is relaxed and it is play-time for the child, the parent asks for and receives a positive request suggestion that the parent and child play the number discrimination game. The two start playing and the child responds correctly to only half of the items. The parent, knowing that a successful expe-

Always adjust the level of difficulty so that your child feels success rather than failure

rience is essential to the child's future attitude, immediately moves the level of difficulty back to where the child had been answering about eight out of every ten problems correctly. This gives the child a feeling of accomplishment, but the level of difficulty is still challenging, as evidenced by the few incorrect responses (about two out of ten tries) that are made from time to time. After some time, the child begins to show disinterest. Although the parent is anxious for the child to continue, the game is stopped without pressure or unpleasantness when her attention starts to decline. The child is praised for success even though the parent would have been pleased with more progress.

Comment: This wise parent knows that success is measured by how much desire the child has in continuing. This cannot be done if the child experiences failure too many times. Thus the level of difficulty was adjusted so that most of her attempts were successful. The child ended the game too soon to please the parent, but the parent did not pressure the child when gentle persuasion did not succeed in getting agreement to continue. The child learned from the results of these learning endeavors and knew, when incorrect responses were made, what the correct response should have been.

This represents the application of the reinforcement principle in a direct teaching and learning situation involving the use of creative play.

Talking to Your Child

A child can learn much from conversation; moreover, conversation and the resultant vocabulary development during the early years of a child's life will help to build her cognitive power. In conversation, of course, words are symbols consisting of sounds created by the vocal cords. For a child who does not yet

have a vocabulary and who has not mastered the capacity to get meanings from sounds made by the vocal cords, this is indeed a complex and challenging learning situation. Parents should remember what was emphasized about empathy earlier in this chapter. You must know that listening and getting meaning from sounds require ability to associate these sounds with something familiar to the child. This is more complicated than one might think, particularly if this task is analyzed from the point of view of the child. Remember that the child is beginning with zero vocabulary.

Children learn to recognize words before they learn to speak

Very young children need constant spoken vocabulary stimulation, and parents should converse frequently with them. Some studies of child behavior indicate that children will make earlier attempts at speaking and will jabber and make conversational mimicry if, during the early months of their lifetime, they live in an environment where they are talked to frequently. Even at an early age when a parent máy not think a child is understanding, it is important that conversation (even if it is a one-way discussion) occur frequently. Exposure to language and vocabulary building is very important. The entire five-year period is one of building vocabulary and developing language skills.

As will be discussed in subsequent instructions and suggestions in the text, children should begin to develop a listening or "word recognition" vocabulary before they can speak. Using carefully spoken words -- such as "shoes" when the young baby's shoes are being put on and "fingers" when you touch or she uses her fingers -- will help to build an identification and listening vocabulary before the child actually learns to speak. Repetition of plainly spoken, short words is very important. The proper words used when the child is initially exposed will help the child to understand.

Parents should teach the proper pronunciation of works, not baby talk

The word "dog" is much less confusing to a child than to teach her that a dog is a "doggie" and then later to tell her that "doggie" and "dog" are the same thing. This principle also applies to "train" and "choo choo twain." Often, parents think they are speaking on the child's level when they use childlike words. This only adds to the learning burden of the child. Parents can use the proper words and speak them with enthusiasm in a tone that creates response from the child without

resorting to copying words they heard other young children use when first learning to speak.

Parents will also help children build vocabularies if two or more words that denote the same thing can be avoided; for example, if a mother calls a cat a "kitten" and a "kitty" as well as a "cat," she can cause confusion for a young child struggling to master complex sound symbols that identify an unfamiliar world filled with unfamiliar objects and things. Please be sure to thoughtfully avoid confusion in this regard.

Words such as "too," "to," and "two" are often used freely in the same sentence ("It's *too* late *to* play with your *two* cars"). Proper words, clear pronunciation, and an avoidance of confusing terms ("*No*, I don't *know* or "*Close* the door and hang up your *clothes*") will do much to help the child.

Teach the difficult concepts, such as right and left hand, carefully

In teaching right- and left-side concepts, a thoughtless teacher may say to a small child "right," meaning that she is correct when she points to her left hand. Parents must be exceedingly conscious of words used in conversation with very young children.

If a child is to develop a keen intellect and a powerful means of expressing thoughts, she should be exposed to a rich vocabulary. Repeating the names of objects which continually surround the child will help build vocabulary power. Detailed emphasis will be given in building a more powerful intelligence through the use of language in subsequent chapters of this book. Emphasis is given at this time so that parents will know from the outset that conversation and vocabulary building are extremely important and should be properly developed from the very first months of life and continued throughout the remainder of the entire program of home-based, early childhood instruction.

Homes and Child Care Centers as Learning Laboratories

To be successful in building the child's intellectual power, the home must provide continuous exposure to a wide variety of experiences. These experiences should stimulate the mind of the child and expose her to circumstances where the limits of her mind will be stretched. In any home where children are growing up,

the most important function is to nurture development and bring to fruition all of the latent talents of the child.

Exposure to books, to illustrations and pictures, to puzzles, to stimulating colors and shapes, and to a rich array of sounds, smells, tastes, and touching and listening opportunities should be planned. Variety and change of environmental stimulation are very important. Parents should constantly be thinking of how to add depth and breadth to the experiences which are provided in the home. Learning takes place when action is required from the learner. The teaching methods described in this manual and related supporting materials will call for an active response from the learner.

Learning takes place when affirmative action is required from the listener

Many television programs may be useful in this regard. Parents should supplement the course of instruction provided in this book with related household items and toys and with regular exposure to high quality children's TV programs. Viewing and listening to such programs will fall short of a total early childhood development program; however, they will be a useful enrichment and an added environmental dimension that should be used. Because TV viewing is a somewhat passive activity for the young, it should therefore be considered as having only that enrichment value which can be greatly enhanced through active follow-up by the parent. The essential elements of the many children's programs, such as "Sesame Street," will be incorporated into the contents of this book. These TV shows developed for the very young should be used but not relied upon as anything even closely approaching a maximum effort at early childhood education.

Television viewing should be enhanced through active follow-up by the parents to teach the precepts shown

Parents should be conscious of the home as a learning laboratory for the child. A variety of materials that will keep the child constantly exposed to learning circumstances should be provided. Recorded music and stimulating, colorfully illustrated books can serve as added supplementary and enrichment materials in a home consciously prepared to perform the function of providing maximum intellectual stimulation for the child. Parents should look at the home from the child's perspective and should often think of the home as a stimulating learning environment which will lend maximum support to parental efforts to nurture the full potential for helping the child build a superior mind.

Parents should look at the home as a learning environment for their child

The Child's Self-Image

It is important that the child grow up with a positive self-image. This comes from successful experience and from a sense of progress and accomplishment each day. Parents should relate to the child in such a way as to provide a feeling of belonging and a feeling of worthiness. This requires a great amount of loving and listening by the parents.

The listening part of this self-image building effort should be taken seriously. Parents should seek to have the child express himself. They should try to encourage the child to express any fears and apprehensions that she might have. This will yield valuable information to the parents as well as provide a useful outlet for the child's feelings. These listening sessions should help the parents get feedback on their teachings as well as indicate the child's responses to these stimuli. Perceptive parents will learn how to adjust and adapt teaching strategies from what they learn during these listening sessions.

The child should develop a positive "can do" attitude

The child should be helped to develop a positive "can do" attitude toward learning and toward himself as an individual capable of doing a number of useful things. Keeping the level of difficulty adjusted to the child's needs will help in building a good self-image. (Review the material on reinforcement in the first part of this chapter if you need to refresh your memory on adjusting the level of difficulty to meet the child's learning needs.)

Reminder:

In the interest of avoiding awkward sentence structures, "parents" has been used to refer to parents, guardians, child care givers and other child care providers.

4 Household Items and Educational Toys as Teaching Aids

Toys that have educational value -- blocks with letters or numbers on them, balls or other geometric shapes of different sizes and colors, etc. -- can be appropriately useful in teaching children. In addition, there are always in the home many items that can be successfully used as teaching aids. These common toys and household items are discussed in this chapter. Parents do not need to purchase a wide array of toys to meet the needs of the programs described in this book. Through some creative use of items commonly found around the home (see the applications at the end of each chapter), parents and children will find many opportunities to play and learn together in the program of instruction described in this book.

Parents should use educational toys either homemade, borrowed or purchased

Objects That Stimulate Learning

In the following paragraphs, we shall discuss the kinds of objects that are applicable to different age levels and those that encompass visual, audio, and tactile (touch) sensations for the child. This discussion will serve as a general introduction . . . more specific instruction will be found in the chapters that follow.

Crib Toys

Inexpensive crib toys are commonly used to attract attention. Many of these very low cost toys for the very

young infant (prescribed for teaching strategies in chapter 5) have been designed to stimulate the sensory experiences of the infant during the age of four months to the time when he is able to creep (crawl). Such toys should be colorful so that they attract the child's vision as soon as he is able to see and focus his eyes. They should, if possible, stimulate the child to want to reach (exercise), thus providing practice in coordinating his arm and leg muscles. Some crib toys should be audible to stimulate the sense of hearing; they should be responsive to hands and feet that come in contact with them. They should excite and stimulate curiosity.

Crib toys should be colorful as well as audible to stimulate visual and listening capabilities

In situations where household items and toys are available for use in homes and child care centers, they should be changed frequently so that they are not commonplace to the sight, touch, and hearing. Their use is to make the crib a more responsive and stimulative environment. Variety of color, shape, sound, and functional response must be provided. Parents should look around the home and shop around in various stores for opportunities to select a variety of objects to stimulate the child's mind. The more sound, color, and touch stimulation for the child, the greater will be his growth opportunity during the time that he is a crib-bound infant.

Crib toys should be changed often for variety

Toys and Common Household Items for the Creeper

By the time the child has attained the physical capacity to creep, he has also gained the ability to reach, grasp, listen, focus his eyes, imitate, and respond to various kinds of stimulation. Homemade and other toys (prescribed for activities recommended in chapters 5 and 6) should stimulate the curiosity of the child and sharpen his perception. Toys and common household items that will help the child develop listening skills should be provided. Objects that require the child to see differences in shapes and colors are also useful.

For the creeper, toys should stimulate curiosity and sharpen perception

The child needs muscle activity and experiences in learning coordination of his hands and feet with his vision. Toys and household items that stimulate use of his larger muscles and those that require his hands to

reach and grasp in coordination with his sight should be used.

Teaching Colors, Numbers, and the Alphabet

Educational toys can aid in teaching colors, numbers, and letters

Some household items and toys can be used to devise games that teach color identification, numbers and number concepts, and the letters of the alphabet (prescribed for activities recommended in chapters 7, 8, 9, and 11). These games provide variety and new challenges for the child. Most parents, as they observe their children using household articles and educational toys, will think of many games that can be created to provide more learning opportunities for the child.

Games that create a joyful and attention-holding response are usually effective in teaching. The learning comes without awareness of effort since the concentration is on the game. This is the great value of truly effective educational games used during play time.

Teaching Sight, Sound, and Touch Discrimination

Parents should use toys that teach sight, sound, and touch discrimination

The preschool child should enter formal schooling with his senses developed and his ability to use them to provide information to his thinking processes sharpened as keenly as possible. He must be able to listen to sounds that are nearly the same and detect the differences. He must be able to look at objects and pictures that are almost identical and be able to see slight differences. He must be able to identify objects that he cannot see by touching and feeling them to form mental images of them. Parents should concentrate on building these skills in all their play and incidental teaching.

Parents should use objects around the house that will help to develop keen use of the senses of sight, touch, and hearing. The results may not become apparent until the child faces reading and arithmetic instruction in the formal school situation, but the parents should not neglect the developmental opportunities provided by games that develop these senses.

Two Goals

Children not only must develop mental powers, but also enjoyment of learning

Your child must reach two goals that may seem to conflict with each other: He must develop his latent mental powers to the maximum extent possible, and he must learn to enjoy learning and to develop wholesome attitudes toward his educational experiences.

The use of common household items and a few toys should help parents reach these somewhat contradictory purposes. The applications at the end of each chapter are challenging because they do more than entertain -- they require the use of two or more of the senses and involve physical as well as mental activity. Since many of these applications require two persons to play the games, the additional advantage of involving the parent is also provided.

Importance of Following Instructions

Let the child's interest in the game determine the time to teach

The directions accompanying the practical applications at the end of each chapter emphasize the necessity for the parent to permit the child to determine when he is ready to play a game and when he wants to stop. Parents should heed this advice. It is advisable to begin when the child is eager and to stop when his response is high so that the child will look forward to additional experiences with the toys.

Many parents, in their eagerness to see the child make progress, may pressure or attempt to coax the child to play. Research has proved this to be a serious mistake in the strategy of teaching the very young child. The premise of this entire book is based upon play as a means of learning. The games must be child centered and child directed.

A wise parent will study the child and respond to his signals. Through extra effort by the parent, playtime that turns into incidental learning experiences will pay the rich dividends.

Developing Abstract Reasoning Powers

Children in the fourth year of life, (see Chapters 12 and 13) should develop ability to reason and derive

judgments after weighing multiple factors in a game situation. Be sure to use the objects and a few toys to provide a mind-stretching interplay of the more complex games when your child has reached the age of four.

Games that apply number and color skills develop cognitive power

Application of the number concepts and use of simple arithmetic skills may be provided through use of many common household objects and a few simple toys described in these chapters. Teaching addition and subtraction through the use of games will make fun out of practice and drill if skillfully executed by the parents. Games that apply arithmetic skill with color identification and with use of geometric shapes will provide unusually rich opportunity for development of cognitive power. Children who master these capacities to use a combination of three or more skills in a fairly complex game will be reaching levels of ability that will lead them to become very capable and intellectually powerful students when they attain school age.

Try to play games as often as the child's interest demands

Parents should pay special attention to the checkers and chess games that are recommended in chapter 14. These games are somewhat commonplace and can be obtained without much expense. They are, however, extremely effective as cognitive power builders. Parents should provide children (who display the capability) with opportunities to play these games as often as interest demands. Needless to say, not all children of preschool age will have developed the ability to skillfully play checkers and chess. But these two games provide continuous mental exercise, and they should be used extensively with children who can benefit from them.

Assembling A Ready Source of Teaching Objects

Link the child's instinct to play with his capacity to learn

As parents begin to work to give their children many rich learning activities, they should establish a ready source of teaching aids. These may be common items around the house such as small blocks of wood, a measuring tape, spools, paper clips (depending on age), simple toys, geometric shapes such as triangles, squares, circles, etc. These items should be placed in plastic bags (be careful to avoid accidental injury in

using plastic bags and other items) and stored in a closet so parents can get them in an instant if the occasion arises to teach through play. If the child shows interest but the parent has to search and assemble what is needed, it is often too late. Teaching moments are often fleeting occasions that require an almost instantaneous response. Be prepared with your "bag of tricks" when opportunity knocks.

5 Learning During the First Ten Months of Life

With the background information provided in the first four chapters of this book, we are now ready for instruction and intensive discussion about what, how, and when to teach. The first two chapters are important for parents as a theoretical foundation and as basic guideline material to be used throughout the entire course of instruction and the full period of parental responsibility to the child as her first and most important teacher.

A child's feelings have a profound impact on learning

Remember that a child's feelings have a profound impact on learning. The factors we cannot teach you as a parent are the specific feelings and emotional responses of your child. We can emphasize problems and generalize from what has been learned about most children and from how most children respond, but each child is an entirely different human being. Parents realize this more than anyone else. We emphasize again that the parent should watch the emotional and attitudinal response of the child to the teaching and learning situation. Beware of *too much pressure,* and be very careful that you do all you can to help the child have a positive and healthy attitude toward learning. Her first learning experiences must be rewarding and filled with much more success than failure. Do not apply pressure. Keep in mind the reinforcement principle, and remember that leading positively will in the long run reach the child more deeply and effectively than efforts to drive or to punish for wrong responses.

Beware of too much pressure; help the child develop a healthy attitude toward learning

General Educational Outcomes During the First Ten Months

During the first ten months of your child's life, you will want to systematically build her pre-vocabulary skills and imitative voice sounds and her visual, listening, and muscular skills. You will want to spend the time to teach the child that learning can be fun and that she can be confident in her abilities.

The First Few Weeks of Life

Stimulation of mental activity at the earliest age is important

Remember that a major purpose of early childhood education is to nurture maximum growth in intelligence. While much is not known about this process, there is good reason to believe (from extensive research) that stimulation of mental activity at the earliest possible age is very important. Parents should be aware of this need from the time a child is a new-born infant. Varied sounds and other sensory experiences should be provided. The baby's crib should display diverse colors and patterns. Crib toys should be abundant; objects that move and toys that play music should be provided. Be sure that the crib is an active, responsive place - a place the baby will enjoy.

The baby should sit or recline in many positions during those first few weeks of life. She should have alternative locations in the home where she can see different items, shapes, and colors, both inside and outside the crib. Reaching, grasping, and kicking and also receiving auditory and visual stimulation should be provided. She should feel loved and secure and have her physical needs met promptly and regularly in response to her cries and demands. Be sure you provide stimuli for muscular development. Help the child to be both physically and mentally active.

The good-natured baby also needs environmental stimulation in the home

Some babies are quiet, demanding little attention. Busy mothers can easily neglect such infants by failing to provide a stimulating and responsive environment. Often the inactive, good-natured, non-crying baby needs this environmental stimulation the most. See that your baby spends her first months of life in an active, stimulating environment.

Activities at Sixteen Weeks of Age

By the time a baby reaches 16 weeks of age, she will have begun to show interest in matters other than feeding, sleeping, and being kept dry and clean. She will want to be held and will enjoy being propped up. Objects that attract attention and stimulate curiosity on a broader scale should come into her experience at this time. She should have her feeding and sleeping routine fairly well patterned. She should be able to follow moving objects with her eyes and be stimulated to reach for things with her hands. Tasting, touching, and reaching experiences should be provided often.

Tasting, touching and reaching experiences should be provided

The 16-week-old child should show some emotional response to stimulating situations. She should be cooing and trying to make initial sounds other than crying. She should be stimulated to smile, even laugh aloud, and to respond to all kinds of sound and motion.

It is common for mothers to demand absolute silence when the baby is taking her morning and afternoon naps. This kind of situation does not help the baby become tolerant of sudden noises or make the home a natural, normally functioning place. Teach the baby to sleep with the usual sounds around the home. She must learn to live in a world with a fairly high noise level and be able to carry on her normal routine while adjusting to life's circumstances. An enforced quiet and unnatural whispering or tiptoeing around the home can actually be detrimental to the infant. Her sleeping and her concentration when awake must be done by blotting out distractions.

Teach the baby to sleep with the usual sounds around the home

Be sure that the baby gets exercise and a chance to move her arms and legs. If she is not active, try to stimulate her to kick and reach as much as possible. Encourage emotional response by laughing and playing with her. Give her attention, conversation, and encouragement to respond.

Be sure the baby is motivated to exercise arms and legs

Activities and Capabilities of the Five-to Seven-Month-Old Infant

By the time a baby is five to seven months old (depending on each child's individual abilities), she is be-

coming ego-centered and is demanding more attention. She prefers to be in the sitting position and struggles to be where she can see and interact with others. At this age, her sensory experiences should have increased greatly. She should be able to feel and taste and should have many objects to grasp and examine. She should demonstrate the ability to shift objects from one hand to another. Help her practice this.

Increased exposure to music and conversation should be provided

Increased exposure to music and conversation should also be provided. The infant now has more social awareness and will respond readily to stimulation. Surroundings in her crib and in other locations around the home should be of varied colors and shapes. She should have an opportunity to grasp and bang toys or her fists on her high chair or feeding table. This and other experiences should stimulate her to make vocal sounds. Talk to her and sing to her and do all things needful to stimulate her to use her voice. Encourage her vocalization as much as possible in other experiences besides crying. Try to get her to make sounds, and make a special effort to react to her vocalization.

Provide ample opportunity for the child to push up on "all fours"

The five- to seven-month-old child should be striving to get her knees under her body and to push up on "all fours." Ample opportunity for exercise must be provided. Help her to practice this feat. The extent and variety of physical activities should be intensified.

Allow the child to build a strong muscular capacity

She will have begun to learn to cope with gravity from the experience of falling whenever she attempts to sit alone. In carpeted or padded areas, this type of experience should be permitted. When the five- to seven-month-old topples from a sitting position, let her struggle briefly before coming to her assistance. (Parents who rush too quickly to help often do a disservice to the infant.) This will increase her physical balance and allow her to build muscular capacity. Rather than being inhibited, the infant at this age will reach to pull himself up and may even crawl. Encourage her to experiment in these endeavors.

Activities at Ten Months of Age

Between the ages of seven and ten months, the infant will have become more restless as she tries to

get on hands and knees to crawl. As she learns to move on hands and knees, a new era opens for her, and she will require some adjustments to protect her from falls and injury. Be sure to provide ample opportunity and encouragement to practice. When the baby first starts to crawl, it is the time to place brightly colored and interesting objects just beyond her grasp to encourage her reaching and to stimulate arm and leg movement. Do not frustrate her, but challenge her in a way that will cause her to succeed.

When the baby starts to crawl, encourage this by placing attractive objects just beyond reach

The baby at ten months of age should have developed more hand and finger coordination ability. Advanced and rapidly growing children may be able to take a few faltering steps at this age. All of these physical capabilities should be noted and encouraged.

Sensory experiences and exposure to language, music, colors, and shapes should be increased. It is time to fill her daily life with rich experiences. This is a good time to begin using common household items and toys that are safe to handle but are also stimulating. This is also the time to increase the variety of activities and to surround your child with a mind stimulating environment.

It is time to fill the child's life with sensory experiences

Reminder:

In the interest of avoiding awkward sentence structures, "parents" has been used to refer to parents, guardians, child care givers and other child care providers.

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Introducing the "How-to-do-it" Applications

This introduction precedes the "How-to-do it Applications" that follow each age-level chapter for the rest of the book to help parents gain the most from the applications presented. For the applications ONLY portion of the next chapter, there are age level segments provided at the top of the page to emphasize the overriding importance of an early start.

Many of the applications are given as if for one child. This is done for the sake of the parent. It is not difficult for child care providers, of more than one child, to enlarge the activities to include groups of children.

Learning can take place at any time and in any place and occurs when there is good communication on the learner's level of understanding. Learning also takes place when the learner is interested and curious. It is good to remember that repetition is an important part of learning. Be pleased if he wants to repeat an activity many times. Use this interest to broaden the horizons of the child by finding similar activities that enlarge on the original activity that caught his interest. The order in which children learn to do things is not near so important as taking advantage of each opportunity as it arises. This is what quality time with youngsters is all about.

The premise of the applications listed at the end of each chapter is that incidental learning in the lives of very young children is the best way to work with and engage them in ways that develop a keen intellect. There is a need to be very subtle about the way the very young are taught. It is not necessary to remind them that it is now time for a lesson. It is important, however, to recognize when children are curious and to take advantage of that curiosity. This takes sensitivity and requires thought. Experiment with the applications presented here and adapt them until you find methods which feel comfortable and natural for you.

The applications in this book are designed to help the caregiver build the capability of seizing the moment when a child is ready to learn. The applications given with a specific activity in mind and in a specific setting may be used as they are but with a little thought can be adapted to fit a variety of situations which will accomplish the desired results. These are applications that can be used with all children whether or not they are yours.

Consult with others about your efforts and share your ideas with them. You will find they will also have ideas, different ideas. An educated person is one who is open to new ideas and new truth. Share and combine your ideas. Combine your skills with others as you work together. Networking is an idea whose time has come. This is true whether you are reading and studying this book as a parent or as a caregiver with the responsibility for many children.

My heartfelt thanks to Lois, Kevin, and Karen Hertzler for their talented, thoughtful help and to Jane Engels for setting up a number of the pictures.

Introducing the "How-to-do-it" Applications

Do:

- observe carefully.
- be alert for opportunities.
- be thoughtful.
- be enthusiastic and cheerful, it can be contagious for the child.
- be sure the child is a willing participant - forcing an activity will be counter productive.
- give full time and attention to responses from the child that will help you be successful.
- take advantage of each opportunity that arises if at all possible - caution, this does not mean that the child should always have his/her way. It is part of a family/group and needs to aware of that.
- encourage the child with hugs and praise.
- be flexible and sensitive enough to change the objective once the activity begins if it is to the child's advantage to do so.
- be conscious of time - a child will tire of an activity and want to move on to something else. This is normal and should not be taken by the parent as failure with the activity at hand.
- discuss both successes and failures with others and learn together about the best ways to care for those for whom you have the responsibility.
- remember, yours is a rare opportunity - to give a child an improved intellect for life - a gift no one can take away.
- be aware of the health, nutritional and other needs of the child not covered in this book.
- read other authors, pick and choose those ideas that will be helpful in providing a well rounded environment and opportunities for the growth of the child.
- be aware of sight and sound, size and space, temperatures, textures, patterns and forms.
- observe and/or describe objects and activities from the child's orientation (i.e. think of the perspective from which the child is seeing and trying to understand the activity or object.)
- repeat some activities at various ages making them a bit more complex each time.
- be on the alert for dangerous situations and dangerous toys and/or equipment.

Touching

Be certain that any object a child plays with is large enough so that it cannot be swallowed accidently or cause choking. Make sure that there are no loose strings which could unknowingly wrap around the child's neck.

- Place her in a comfortable position facing you, either in an infant seat or on her back on the floor.
- Position your hand approximately 12" from her face and wiggle your fingers. Allow her to grasp, move, or pull your fingers to promote visual response.
- Reposition your hand in front of her face, slowly move your hand from side to side and up and down allowing time for her eyes to track your hand. Let her explore your hand with touch and taste as she attempts to put it in her mouth.
- Repeat with other infant safe objects such as teething rings and/or rattles.

Playing Music

Introduce a variety of music ranging from classical to country or jazz to pop. Relate the type of music played to the time of day, for example, soft music before bedtime, or faster music at playtime.

- Play music while the child is on his back.
- Move his arms up and down and back and forth in time with the music. Move his legs in a bicycling motion. Roll him gently back and forth in time with slow music to introduce a new kind of body motion.
- Hold him in your arms and dance and sing to him.
- Remember sudden and loud music may frighten him.
- To save expense and expand the selection of music available, check tapes and CD's out of local libraries.

Strolling/Walking

Be aware of the child as an individual with whom you are conversing as you walk. Use a normal speaking voice as you talk to him. He will respond in his first attempts at communication through his own baby language of gurgles and coos.

- While strolling or walking, stop at plants, flowers, or store windows. Communicate with him by using simple words that describe the color, size, or shape of the object.
- Allow him to feel or touch objects when appropriate while describing the texture, color and size.
- Museums, shopping malls, and grocery stores provide like opportunities.
- Brightly colored toys may be hung from the stroller to encourage him to reach out and hit or push (make sure he can not become entangled).

Visual Stimulation

Children respond early to color in their environment and even though too young to fully understand all that has been introduced, new learning takes place each time reinforcement occurs. A familiar voice helps increase her awareness.

- Cut simple shapes (triangles, squares, and circles) out of paper and hang them within visual range but out of reach over the crib or changing table. They will move in the air currents and provide good visual exercise.
- Using fabric, cut two of each shape; sew them together then use stuffing material to give shape. Hang as before.
- Or purchase a mobile; many mobiles have music boxes, and move when the music is playing. This will promote hearing as well as sight.
- Provide a visually stimulating environment using highly contrasting colors.

Parts of the Body

Make a game of finding various parts of the body. Never continue a game such as this beyond the child's capacity to stay interested. Remember it is normal for the attention span to vary from child to child and from project to project.

- Have the child lying down or sitting in an empty chair across from you.
- Point to your eye and say "eye", then take her hand and again point to your eye and say "eye", while still holding her hand point to her eye and say "eye".
- Repeat this with the nose, ear and mouth.
- This can also be done in front of a mirror so she can see her own eyes, nose, mouth and ears. For a change of pace you may want to use a stuffed animal or doll.
- This is an example of one activity that will be used for succeeding age levels.

Grasping

At this age, the child will grasp anything he can get his hands on, and most of the time, the object will end up in his mouth. Be sure he can reach only clean, infant safe objects that cannot be swallowed.

- Gently place objects such as a rattle or toy in the his hand to promote grasping movements.
- Allow time for him to transfer the object from one hand to the other.
- Give him objects that have different sizes, shapes and textures to help him to learn how to manipulate various objects with his hands.
- Place him on his stomach and put a bright toy just out of reach to encourage him to crawl.
- Crawl beside him to give him the idea of how it is done.

Playing Music

Never force the child in any activity. If he draws back, drop the issue and come back to it at another time when there is readiness. Show your pleasure when the positive response you seek is forthcoming.

- Turn on music and place the child in a sitting position.
- Lift his arms up and down, and side to side in time with the music.
- Take him to the stereo and lay his hand on the speaker cabinets; encourage him to feel the vibration as the music plays (make sure volume is at an appropriate level so his hearing will not suffer damage).
- Hold him, and dance around the room, singing to him as you dance.
- Vary the style and beat of the music exposing him to many sounds and movements.

Tasting

Meals can become a learning experience as the child's ability to recognize different tastes broaden. Even though she may show a preference for some flavors and textures take time to introduce new fruits, cereals and drinks.

- Be sure you understand the current thinking about introducing solid foods into the child's diet.
- Mix two bowls of cereal, one with pureed fruit (banana or peach), one without.
- Feed her a spoonful from the first bowl, then the other explaining the differences in flavor, texture and sweetness.
- Prepare two bottles or cups; in one breast milk or formula and in the other water, or different fruit juices.
- Alternate the drinks. Point out the differences in flavor and sweetness.

Strolling/Walking

Make learning a pleasurable experience, use reinforcement techniques to the child's advantage by rewarding desirable responses positively. As another caution, be aware of the limits of a small child's endurance.

- Take her to a playground, park, or sports activity to watch other children at play.
- Cheer and clap using her hands in response to player success.
- Promote vocal interaction between the children and the infant to encourage babbles and coos.
- If she can sit alone, now is a good time to let her swing in infant swings, or let her slide down a slide on your lap, or watch while she plays in a sandbox.
- Let her experience physically as much as she is developmentally ready to do.

Motor Skills

With all activities use common sense and never put a child in danger in any way. This activity will encourage the child to crawl and to become increasingly aware of his developing physical abilities.

- Place him in the middle of a large blanket and carefully pull him around the room to explore his surroundings.
- Roll up a small blanket lengthwise so it is wide enough to cover his tummy and chest, lay it on the floor and place him on it, stomach down. While holding each end of the blanket, pull him into a crawling position to encourage crawling.
- Get down on the floor with the child, play, roll, tumble and chase him. Give him a chance to experience what his body is capable of doing.

Strolling/Walking

Take time to reinforce the learning experiences. Continually expand and enrich the child's awareness of the world around him by calling attention to the many everyday sounds and smells that surround him.

- Expand on previous excursions by identifying sounds such as a dog barking, a bird singing, a car honking, or a siren wailing.
- Point out and explain each sound as you listen.
- Indicate the abundance of color by stopping to touch a yellow flower, a green blade of grass, or a white fence post.
- Awareness of texture can be reinforced by feeling the rough bark of a tree, the soft velvet of a rose petal, or the smooth surface of a metal sign.
- Periodically revisit those experiences encountered on previous strolls.

Bath Time

To help the child become accustomed to bath time collect suitable colored bath toys. Use this time to teach colors and shapes by making a game of identifying colored objects. ***NEVER*** *leave her unattended in the bath.*

- Use different brightly colored plastic containers, spoons, cups and blocks in the bath.
- Hold up a red cup and say "red", then hold up a blue cup and say "blue".
- Hold up two different items that are the same color and say "red" for each.
- Introduce shapes and identify them in the same manner as you did the colors.
- Review colors and shapes during each bath time.
- Add new bath toys periodically. Use the bath toys collected only at bath time.

Exploring

Show that learning can be a delightful adventure by hugging and praising the child when an activity has gone well. Never scold or lose patience when a response is less than desired. Simply try again at a later time.

- Lie on the floor so you see objects from the child's vantage point.
- Point out the colors, shapes, and textures of the environment around you, the soft, blue carpet, the hard, brown leg of a table, the circles in the sofa fabric.
- Take the child's hand and place it on each object as you describe it; let her touch and feel the textures.
- Make a game of crawling after the ball by rolling a ball across the room and encourage her to crawl for it. When she reaches it, roll it away again.
- Create tunnels with large boxes or cushions; encourage her to crawl through.

Playing Music

Opportunities abound to guide the child's natural physical and motor skills while music is playing. Although this activity mentions stereo systems there are children's TV programs that play music as well.

- Play, sing or hum different types of music for the child as you drive.
- Check out sing-a-along tapes from the library or purchase them from the store to play for the child
- Pick him up and dance, or if he can stand, hold his hands and move them with the music.
- Hum or sing softly when you are rocking him.
- Sit and quietly listen to music sometimes.
- Clap in time with the music when it fits.

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6 Learning During Ten to Eighteen Months

The child of 10 or 18 months is now reaching an age where he must have additional mind-stretching activities. He is not old enough to have formal periods of instruction, but his parents must be keenly aware of the necessity to stimulate him mentally, which must be more systematic and more deliberately planned than it was for the younger infant.

At ten months, the child can recognize approval or disapproval from your voice tones

By the time the child has reached 10 months of age, he has greater physical and mental capabilities, indicating that he is becoming a child rather than a helpless infant. He should be able to sit whenever he wants and stand with some support. It is not uncommon to see a 10-month-old baby pull himself to a standing position; a few even begin to walk at this age. Do not "push" your child to accomplish this if he is not able to do it by himself.

The 10-month-old child is forming the capacity to respond more readily to mood and emotion. He will recognize a tone of voice that implies approval or disapproval from his parents and will be able to easily sense their moods. In short, he will be responding and participating emotionally.

By the time the child is 10 or 11 months of age, he will enjoy (and look forward to) playing and romping or "roughhousing." He will delight in throwing or shoving toys off tables and other places so that he can watch them fall. Because he will be very interested in many objects around him, this interest should be used for learning purposes.

At this age the child should have an opportunity to place things inside containers and take them out again. He should be able to "stack" objects until they fall. He should be permitted to explore in the kitchen and other places where he can become acquainted with the common objects in his home. During all this, constant exposure to names of things and opportunities for him to learn their function will be very important. (Bear in mind all warnings on harmful products.)

The child is now old enough to have stories told him from pictures. These should be simple, stimulating experiences. He should have ample opportunity to learn to recognize objects in illustrations of books. This learning process will be slow at first, and much patience must be exercised.

The child should learn about animals and other forms of life

During this time the child should have an opportunity to learn about animals and other forms of life. He will be interested in dogs, cats, and other living things. Maximum exposure is very important through this particular time of his life. His experiences should be extended as broadly as possible.

Vocabulary Development

Vocabulary development is vital during this stage of a child's life

Vocabulary development is particularly important during the period from 10 to 18 months of age. By the time the child is 18 months old, he should be on the way toward building a speaking as well as a recognition vocabulary. The words he understands and is able to pronounce in his own limited way comprise his "speaking" vocabulary. The words that he understands but cannot speak comprise his "recognition" vocabulary.

Parents should teach at least twenty words to the child of this age

The child care providers should endeavor to build a speaking vocabulary of approximately 20 or 40 or more words by the time the child is 1 1/2 years old. A recognition vocabulary of from 50 to 100 or more words is also desirable by this time. Such an attainment will be difficult for young children who seem to mature slowly. Parents should not be worried if the child falls short of this goal. It is not in the child's best interest to pressure him to reach this level. Rather, the child care providers should seize opportunities to teach words and to encourage and reinforce efforts to get the child to speak

as many as 20 words. This can be done by giving the names of objects as the child comes into contact with them. Parts of his body, eating utensils, toys, and common object found in his room and in the home should be mentioned frequently.

Stimulate the child to connect the spoken names with the objects they represent

The words or sound symbols for objects found in his everyday life require cognitive power from the child's point of view to develop associations between objects and the sound produced by the vocal cords of his parents as a means of identifying these objects. By stimulating him to make these mental connections, the parent is helping to build the child's intelligence at the same time that the child is acquiring useful information and cognitive skills, Therefore, vocabulary building must be a continuous process, and parents should value the moments they spend teaching the child and watching his mental stimulation and growth.

Recognition Vocabulary

Building a recognition vocabulary beyond the level of the speaking vocabulary can begin before the child develops the complex skill of making sounds with his own voice as his symbol of communication. Child care providers should enunciate clearly the proper word symbols for the names of objects being taught to the child. As discussed earlier in this book, it is confusing to the child to hear several names. Later in his life, he can learn that there are many names for some object; but in these early stages of vocabulary development, the child care provider should use one name until maturity makes possible the understanding of other names for a particular item.

Words should be enunciated clearly and the correct names of objects taught

Names of Objects

Early in the child's life, the parents should repeat the correct names of objects familiar to the child. The putting on or taking off of shoes or stockings or the use of a spoon or cup at the dinner table can be the focus for vocabulary building. Many times before a child can say the word "shoes," he will get his shoes for a parent when asked to do so. Repetition of the word by the

Words can be taught as household chores are performed

parent will actually "program" the child to understand the word "shoes".

Family Teamwork

Brothers and sisters or other persons having close contact with the child should understand that the parents have a regular program of early childhood growth and development in mind, and these persons should be asked to participate. They should be urged to enunciate clearly also and to use correct words for objects. Without undue repetition, the child can receive great exposure to a vocabulary that can build intelligence and move him toward the goals we aspire for him to reach.

Conversational Stimulation

Frequent conversation should be directed at the child by all members of the family

During this period in the child's life, frequent conversation should be directed specifically to him. Short, distinct sentences should be spoken. He should have a response to his first efforts to try to speak. Jabbering incoherent sounds should be encouraged and reinforced. When he calls out, respond with words that will encourage him to use his voice more often as a means of communication and as a method for getting what he wants. Try to get him to point to objects that he wants and to say the name of the object. Do not overdo this to the point of frustrating the child -- for this will not be applying the crucial principle of reinforcement.

The child will very likely have a word sound for certain objects; encourage this by using the correct word

Seize upon every opportunity to encourage him to use his voice as a means of communication. This may start as single words and grow to simple three- or four-word sentences. The child will very likely have his own word sound for certain objects. For example, he may use the word "baba" for bottle because he cannot pronounce the proper name. Parents should avoid discouraging him from speaking by saying: "It isn't 'baba'; it is 'bottle.' " Rather, they should repeat the proper name and reinforce the child by responding to his request. Many parents make the mistake of repeating the incorrect pronunciation and adding it to their vocabulary. If spoken incorrectly often enough, the word soon seems correct to parent and child.

The parent must remember that, as the child's first teacher, there is a responsibility to teach correct principles and facts. This can be done at the same time that some laughing, playing, and enjoyment of learning takes place. You *can* have fun with your child and teach him correct principles. You can get down to his level and have empathy and understanding for him without being frivolously foolish in using baby talk or resorting to an incorrect principle.

Parents must strive to develop their child's mind and build a powerful vocabulary in the process

Be "vocabulary conscious" through his early childhood months, but be particularly vocabulary conscious during your child's first 10 to 18 months of life. Later on in his life, you can build upon this basic vocabulary, especially during the months before he enters school. But be sure that while his basic vocabulary is being built, your child gets the benefit of mental stimulation for his growth in intellectual power. Read through this section of your book many times and do everything possible to see that the child's heritage in your home includes a maximum opportunity to develop his mind and to build a powerful vocabulary in the process.

Building Listening Capacity and Sound Discrimination Power

Child care providers should try to build listening as well as speaking ability in the child

The child care provider is an observer as well as a teacher. During these formative months of a child's life when his mind is particularly fertile, the parents should try to build some listening as well as speaking ability. (This process is discussed later in this book. It is emphasized here to alert the child care provider to seize every opportunity to teach auditory perception even at this very early age, although we recommend a formal program when the child is more mature.)

The child must learn to distinguish between "sound alike" letters

As the child grows, he will need to distinguish between "sound alikes" which have subtle differences; for example, the letters *b* and *d* or *i* and *y*. He will need to recognize many other sounds as he begins to read and to build his basic study skills. Therefore, during the baby's 10 to 18 months, the parent should look for opportunities to build listening capacity and sound discrimination power. Because children are active and vigorous at this age, such opportunities may be rare.

Each child will respond differently to the listening activity

When you see that the child is in an attentive mood, whisper to him or get him to respond in games that require hearing perception.

When the child is ready for training in listening skills, the parent should take advantage of it. The continuity of the entire program requires a step-by-step, skill-building process. Each child will approach the listening activity and respond differently. The child care provider should recognize this fundamental law of teaching: Teach when there is readiness to learn. If it comes during this period of the child's development, use the program as discussed above.

Teaching Independence and Self-Reliance

Parents should be aware of the necessity to gradually teach independence and self-reliance in the home. This should begin in the 10- to 18-month period in the child's life. Give the child a chance to become self-reliant; have the patience to permit him to do things in his own slow and irregular way. Often parents do too much for the child, thereby depriving him of the opportunity to develop his own abilities and to build his own self-reliance. You should seldom do for a child anything his is capable of doing for himself. The only exception to this instruction should come when necessity forces you to get something done in a hurry.

Child care providers should let the child become self-reliant and proceed at his or her own pace.

In the normal routine of the home, building self-reliance should be a high-priority item. More capability will come later. If the child is to become independent, the parent must realize that to "help" is to take away potential for growth and development. Parents who make children totally and helplessly dependent upon them are depriving the youngster of development opportunities. This fact cannot be emphasized too much. The ultimate object is to raise a child who will be a happy, self-reliant, and efficient person.

Recognition of Three Basic Geometric Shapes

When the child is between the age of 15 and 18 months, parents should expose him to recognizing

circles, squares, and triangles. If possible, acquire or cut out your own geometric shapes. If they are also of varied colors, they will be even more useful. Be sure to become familiar with these items and learn how to use them for the maximum educational benefit of your child. Take the time to either acquire or to build these colored geometric shapes, and as you play with your child several ideas for using them for playing and teaching will become apparent to you.

Teach the child the circle, square, and triangle

Additional Instructions and General Comments for Ten to Eighteen Months of Age

Although some educators argue that children of this age are so lacking in maturity that it is hard to teach them, there are some very simple things they can learn easily which will help them when they are more mature, when they have developed a vocabulary and can speak distinctly, and when their minds have been developed more fully. Educational outcomes are difficult to predict at this age.

Educational outcomes are difficult to predict at this age

Because the child has a limited vocabulary and an extremely short attention span, attempting to teach him presents a great challenge. Keep in mind that our program is seeking to stimulate the child to build a powerful intelligence and a good attitude toward learning. He needs a maximum opportunity to learn all he can during every month of the first five years of his life. If we can start him at a high level of intellectual stimulation during this younger age, he will start to build cognitive powers, and his capability for learning later on will be enhanced. We are not merely seeking the basic skills and educational outcomes, we are also seeking the results of strengthening his intelligence as a human being. This capacity, if established now, will serve him well in later years. This is a great time of opportunity. Do not procrastinate and let precious teaching moments pass you by.

We are not seeking basic skills, but the results of strengthening the child's intelligence

The learning experiences of the child at this time must be closely related to those things with which he has physical or sensory contact in his day-to-day encounters. For example, in building his vocabulary, be

Learning experiences must be closely related to the child's sensory contacts

sure to include words that name parts of the body. Touch his nose and say, "This is your *nose*"; touch his foot and say, "This is your *foot.*" Introduce him to the names of objects that surround him and that he can hold, touch, feel, taste, or smell. By using many of these objects and by touching, seeing, tasting, or smelling them, he has a multi-sensory experience that will stimulate his interest and capacity to learn.

The child can also become familiar with actions and action words. His total environment during this period of time can be responsive and rich in learning opportunity for him. Although it will require additional work for the child care providers, it will nevertheless yield great dividends; but the child care provider must be conscious of the child's capabilities to learn and must have simple objectives in mind. Desirable objectives for the child during this period of time are as follows:

Simple objectives must be kept in mind

(1) To have a speaking vocabulary of approximately 20 or more words and a recognition vocabulary of approximately 50 or more words

(2) To have an initial experience with three basic geometric shapes and learn to place squares, circles, and triangles in receptacles of a similar shape and color

(3) To learn to sleep during relatively high noise levels in the home

(4) To have a multi-sensory experience with many objects around the home by being able to see, hear, or touch them or to taste or smell them and learn of their uses

(5) To learn to respond to simple instructions ("bring me your shoes"; "find your book")

(6) To learn to point to objects and say at least some of their names (an optimum number, 20 objects; a minimum, about five)

(7) To have listening experiences with initial auditory discrimination that will be useful later in learning phonics (learning the spoken value of letters and letter groups) and how to read

(8) To have experiences in assembling simple objects, such as putting lids on plastic bottles or screwing caps on empty toothpaste tubes

(9) To be able to locate at least five parts of his body when asked to do so

Attitudes toward Learning

An important objective is to help the child have a positive attitude toward learning

An important objective for the child care providers is to learn to help the child have a positive attitude toward learning. In the process, they should help him develop a positive image of himself and feel competent in his abilities. In addition, the parents should have learned a great deal about how to teach the child. They should begin to have some idea about his strengths and limitations. They should have learned some tricks about how to hold his attention and how to interpret certain responses that he might make to the learning situation. They should be conscious of learning opportunities and be striving to make the home a powerful, responsive, learning environment for the child where opportunities are always present to add to his growth experiences mentally as well as physically.

The first eighteen months will lay the foundation for the teaching-learning relationship of parent and child

The child care providers should be as conscious of the need to nurture the child mentally and intellectually and to provide him with a balanced learning "diet" as they are to nurture him physically to make sure that he has balanced physical nutrition. These first 18 months will lay the foundation for establishing the teaching and learning relationships that will help the child become intellectually alert during the remaining years of his preschool life.

The child must be emotionally ready to learn

In striving to reach these objectives, child care providers must be wise in recognizing that there are wide ranges of differences, even among very gifted children, in the time that the child is ready and interested in learning certain things and the time when he will attain certain capacities and skills. The fact that one child at one time may be considerably behind another in learning a particular skill should not alarm the parents. They must take the child as he is and work with him in a way that takes maximum advantage of his strengths and stimulates him to learn when he is ready and emotionally prepared.

Few children will reach all of the objectives at the recommended time

Parents should not worry about a child's slowness, unless it departs from what is normal to such a drastic extent that it is obvious special attention is needed. In such cases, of course, specialists should be called in, and extraordinary measures may be necessary.

Keep in mind that the suggested experiences in the learning outcomes are quite ideal and optimum in this program. Very few children will reach all of the objectives at the recommended time since the program is designed to stimulate and stretch the mental capacities of children having widely divergent backgrounds and abilities.

Strolling/Walking

When you return from your stroll, try to recapture the trip by asking the child to tell you what sounds were heard. On a rainy day, recall a previous sunny trip outside and contrast the warmth of the sun with the cold rain.

- As you walk, ask the child to listen for different sounds.
- When he hears something, ask if he can name what made the sound.
- When you have identified the sound, describe the source in some detail - the sound came from a school bus driving by, the bus is yellow, it has big, round wheels, it has square windows, it takes children to and from school.
- Listen to children playing at a playground; describe the noise they make, loud or quiet, happy or sad or which child made the noise.
- Point out sounds coming from far away such as an airplane overhead.

Playing Music

Playing music is very important in a child's life. It can be used to motivate a child's physical movements. Slow, soft music can be used to calm a child down. It can help a child express himself by singing and dancing to the music.

- As the child learns to walk, play games with music and dancing.
- Play slow music and instruct the child to dance slowly; dance with her and show her how you move slowly.
- Then change to music with a faster beat and ask her if she can dance faster.
- Have her join you in clapping hands in time with the music, or to sing and hum along with the music.
- Lay down on the floor and roll with your child and hug her while music plays.
- Watch a ballet or dance on TV and encourage her to dance also.

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Animal life

Children love to learn about animals. Visit a farm or small petting zoo and teach the child how to be gentle and kind to animals. For her own safety she must be taught which animals do not make good playmates.

- Check out books from the library about animals.
- As you point out the animals in the books, describe the noise they make, where they live, what they eat.
- Point out the parts of the body of the animals, compare them to us, "a cat has two eyes, we have two eyes....but a cat has a long tail, and we do not have tails".
- Show her pictures of animals and ask her to name them and imitate their sounds.

In/Out, Off/On

Now is a good time to designate a special place for a child's toys in a special drawer, closet or another convenient place. Make clear that this area is his, for his things. After playtime make a game of returning toys to their place.

- Find a large, plastic bowl and use it to place child safe objects in, such as plastic spoons, plastic measuring cups, blocks, rattles, pieces of brightly colored fabric, or other eye-catching toys.
- Show him how to take the objects out one by one and then put them back one by one, encourage him to help you.
- Find a plastic bowl that has a lid that fits easily and show him how to take it off and put it back on.
- Remember to find things that are easy for his small hands to use.

Parts of the Body

Learning about the body is an ongoing process for you to take advantage of as the opportunity arises. Magazines, TV, stuffed animals or dolls can all be used. A healthy respect for the human body is a desirable goal.

- Continue to point out the major parts of the face; eyes, nose, mouth.
- Begin to point out other parts, hands, arms, tummy, legs.
- Place the child's hand on each part as you describe it.
- Hide each part with your hand or a blanket and ask "where are my eyes" then uncover and say "there they are!" - " where is my foot, there it is!"
- When reading stories to the child, point out different body part in the pictures
- Dolls and stuffed animals may be used as well.
- Body parts can be counted such as one nose and two eyes.

Shapes

Shapes play an important role in describing our environment. They are to be found everywhere. As you begin to teach shapes to the child, keep them simple, just circles, squares and triangles in the beginning.

- Take several magazines or books and sit down with the child.
- As you flip through the pages, look for pictures with circles, squares or triangles in them.
- After pointing out a shape to her, ask her to find a similar shape.
- Point out shapes in many different environments: square windows on a house, circular plates in a table setting, and a piece of pie as a triangle.
- Take her finger in your hand and trace over the shape as you describe it.
- Be alert for shapes in the fabric design of her or your clothing.

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7 Learning during Eighteen to Twenty-four Months

During the period between the age of 18 and 24 months, a child begins to attain more individuality. She learns to walk more confidently and is even able to run. As she approaches the age of two years, she begins to show much better coordination in the use of her fingers. Her attention span remains short, but she will have periods of great interest and enthusiasm for learning.

The child attains more individuality, shows opposition, and has a short temper

At this age, the child seems to enjoy doing things exactly opposite from what her parents have in mind. For example, when asked to "come here," she may either stand still or run in the opposite direction. If the parent holds out her hand to have the child give her something, the child is likely to drop it or throw it in the opposite direction. One of the most often used words during this period of time is "NO!" This does not mean that the young child is deliberately being contrary, but merely that she has mastered a number of abilities and had a strong desire to show her independence.

The child has a short temper and is quickly frustrated at this age. She seems to have no desire to share or give. She definitely is not interested in obeying commands. She can understand many more words than she can say; but keep in mind that her understanding is also quite limited. She needs numerous outlets for her seemingly limitless physical energy; thus teaching must be wedged in around her boundless activity and her desire to be constantly in motion. By the

time the child passes the age of two, she has moved into another phase of activity that will not be so difficult for adults to cope with and understand.

Teaching and Learning Activities during Eighteen and Twenty-four Months of Age

Child care providers should expand the child's vocabulary as rapidly as possible

The most important area of concentration during this period of the child's life must be on vocabulary development. Her ability to name objects and understand word symbols for most of the things around her should be expanded as rapidly as possible. For example, by the time the child reaches age two, she should be able to locate such parts of her body as legs, knees, ankles, feet, toes, thumbs, fingers, hands, wrists, elbows, arms, shoulders, neck, chin, teeth, tongue, mouth, eyes, ears, nose, face, head, and hair. If she can locate and also name these parts of her body, she has progressed very well. But in daily contacts with the child, the parent should repeat the names of these parts of her body. As she is being dressed, the parent can ask, "What is this?" If she answers incorrectly, the parent should say, "No, it is (parent gives correct name)."

In addition to naming the parts of the body, the child should be able to name objects in the home

It is important to have fun with the child and to help her learn the names of the parts of her body in a casual manner. This can be accomplished incidentally when the child is dressing or eating or at other times when a teaching moment presents itself.

In addition to naming the parts of her body, the child should learn the names of most of the items of clothing that she will wear as well as common objects around the house. If she can identify these objects and also name them by the time she reaches age two, she will be doing very well in her vocabulary development.

Identifying Objects in Books

Present pictures of common objects for the child to identify

Activity with books and with pictures should be intensified during this time. Pictures of items familiar to the child should be identified on the printed page. For example, the child should look at pictures of adults and children and be able to locate parts of the body. Pic-

tures of common objects that are known to her from her vocabulary development experience around the home should be presented for her identification. These can come in interested telling, talking, and explaining sessions.

Broadening the Range of Experiences

Children have a natural curiosity; moreover, they have a natural desire to learn and to work. Most children prefer learning activities that have real meaning rather than play that is solely for the purpose of entertainment. Children of the 18- to 24-month age span are usually very responsive to stimulating learning activities if these are presented in a challenging way that attracts the natural curiosity.

Children at this age level should begin to have a wider scope of experience. They should be taken to various places in the city and neighborhood where they can see a wide variety of things and meet increasing numbers of people. Parents should deliberately expand this range of experience after the child attains the age of 18 months.

Children at this age level should have a wider scope of experience

Building Self-Reliance

This broadening of experience should include increasing responsibility for the child. Encourage her to do everything she can for himself. Do only those things that the child is not capable of doing. Your goal should be to strive to make her self-reliant by letting her meet challenges. This should be done without frustrating the child or requiring her to do things beyond her capability. (The opposite usually happens, with parents doing entirely too much for their children at this age level. The constant expansion of the child's ability should be kept in mind, and the opportunity to gradually shift more responsibility to her should be fully utilized.)

The broadening of experience should include increasing responsibility for the child

The child should gradually learn to feed herself at this age in her life. Parents often neglect providing this developmental experience because they dislike the mess that is causes from the self-feeding experience. They should not, however, deprive the child of the sat-

isfaction and fulfillment that comes from this activity. Like the other practical experiences, it should begin with the child contributing only a tiny portion of the feeding responsibility. It should continue gradually until the child is feeding himself almost independently of the parent.

Remember that your aim is to help your child become independent, original, creative, and as self-reliant as possible. During these highly formative months, start helping your child to help herself. Learning will not be superficial, and her life will be a challenging and stimulating experience if in these early months, parents are aware that the child will thrive on challenge and will rise to levels of expectation if they are presented patiently and with great thought and concern.

The Home as a Stimulating Place

The child will thrive on challenge and will rise to levels of expectation

During the child's age of 18 to 24 months, the parents should consider a specific place in the home where she can begin to receive some systematic learning experiences beginning at age two. The time to prepare for this is during this 18- to 24-month period.

Begin to adjust many items of equipment and furniture to the size of the child. Now that she is able to walk and use her hands with greater agility, the opportunity should be provided for her to get into drawers where toys and other items are stored. Additionally, some table tops and easels should be provided at her level of height. As much as possible, the environment around her where she will be working and playing should be adjusted to a size proportionate to her needs. All of these adjustments and preparations should be made in anticipation of more serious teaching and learning that will begin when she is two.

Adjust items of equipment and furniture to the child's size

Some Physical Development Activities

During this period, parents should strive to provide experiences that will develop physical coordination for the child. She should be given plastic bottles to play with. If possible, she should be helped to learn to place lids on and take them off bottles. She should be

taught to place items inside and then remove them from the bottles. She should have experiences in stacking these items and in steadying them so that they will not fall. A game of building a tower of some of the everyday items around the home will help to stimulate the child. Other objects around the home should also be used for teaching activities.

The 18-month-old child will want to scribble and mark indiscriminately on paper with crayon and pencil. She should be permitted to do this on specifically designated areas and encouraged to refrain from marking on furniture and walls. A little guidance will usually help the child to understand that there are certain items on which she is free to mark or scribble so that she can observe the results of her hand movements when using crayon and pencil. At the same time, she should learn that there are some places where she must not mark or scribble.

The child will want to scribble; teach her the proper places to do this

Parents should not attempt to teach writing at this time. The child needs more growth and maturity before she begins this activity. Be satisfied with giving her a few experiences with pencil and crayon as a form of relatively free play.

Also during this period, the child should be given ample opportunity to carry items from one place to another in the home. In situations where the damage will not be serious, this can include the carrying of liquids. These kinds of experiences, if carried out over a period of time, will add to the maturity and confidence of the child -- it will build readiness for more serious learning activities yet to come.

Parents should not attempt to teach writing at this time

Incidental Teaching of Concepts

During these types of physical activities, if certain concepts can be exposed for the first time, the parents should seize upon the opportunity. A simple color or number concept may be explained in an incidental way. Although children are too young to be formally taught these concepts at this time, initial exposure growing out of natural situations might be used by the parent. Other concepts such as heavy and light or hot and cold might be taught. These should be done only incidentally and only as such opportunities might develop in

A simple color or number concept can be explained in an incidental way

the day-to-day activities experienced by the child and the parent.

Teaching opportunities emerge from time to time; seize them

The point is that teaching opportunities emerge from time to time, and parents should seize upon them, even if it is only to make a passing mention of a concept that may receive slight notice or cognizance from the child. Learning occurs from a host of varied and often unrelated experiences. Exposure to cognitive stimulation can occur many times in the daily routine of the child. In this regard, living and learning can be one if the parent is perceptive and alert to lead the child to learn as she encounters new experiences each day -- this can happen in the grocery store, in the kitchen, in the back yard, or on the street while visiting a neighbor. The emphasis should be upon being alert to seize the right moment for these learning activities. These points are stressed here because the child from the 18- to 24-month period is extremely curious and is exploring so often that incidental teaching experiences abound in great number each day.

Talking to Your Child

Keep a flow of conversation moving in your daily contacts with the child

It is vitally important that vocabulary development during this six-month period continue unabated. It is worth emphasizing again that you should be sure that you are speaking clearly and distinctly. Keep a flow of conversation moving in your daily contacts with your 18- to 24-month-old child. This is the time when she is rapidly adding to language capability. Make sure that you do your part in helping her learn to speak, listen, and understand how words add power to communicating. Help her by speaking clearly and distinctly and by adding daily to the things that she learns to identify and name. All of this will do much to help the child through learning activities that will follow in our study of early childhood education.

Reminder:

> In the interest of avoiding awkward sentence structures, "parents" has been used to refer to parents, guardians, child care givers and other child care providers.

Strolling/Walking

Take advantage of the many opportunities to really experience nature when strolling or walking. Incidental learning takes place on a daily basis and the alert care giver will take full advantage of every opportunity.

- Have the child put her hand on the green grass and emphasize the cool feeling this brings to her hand.
- Find a sandy spot and put her hand on the sand to feel the difference in texture between the sand and the grass.
- Put a tree leaf, a blade of grass and a pebble in her hand to let her see and feel the difference between them.
- Use a rainy day as a learning experience, put her hand outside to feel the wet raindrops. Put a paper towel outside and watch what the rain does to it.

Changing clothes

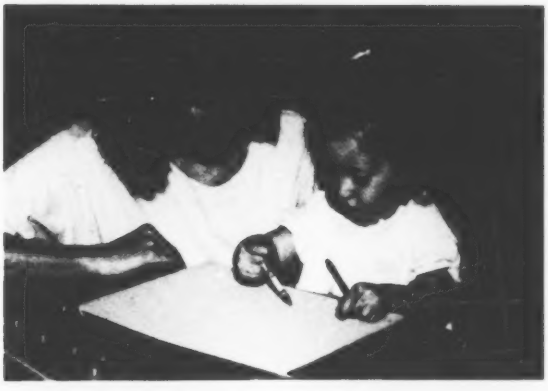
Keep a child's clothing neat and in a place (such as a drawer)set aside for him. Show him where the dirty clothes go and where his clean clothes are kept. Let him help as you take care of both.

- Encourage the child to pull his own clothes off and on.
- When changing clothes, point out buttons shaped as circles, or squares and triangles in the fabric.
- Point out colors that appear in the various articles of clothing.
- Point out corresponding colors and shapes in the room where he is dressing, in the window coverings, bed linens, wallpaper and pictures on the walls.
- Let him pick a shirt to wear, then help him pick matching socks or pants.
- Ask him to find a color in the room that matches his shirt.

Rythmn

Help the child understand that this activity is confined to the pans provided. If he ventures into forbidden areas with his banging spoon, divert his interest back to his assigned pan. There needs to be a time and place for noise-making.

- Let the child use a pan and a wooden spoon for noise making
- Introduce simple beats such as _ - - _ - - or _ _ _ - _ _ _ -, show him how to beat out these rhythms and let him bang away to his heart's content.
- Collect several pans and plastic containers of different materials and sizes.
- Give him a plastic spoon and a wooden spoon, and point out the different sounds each makes on the pans and containers.
- Dance and clap to his "music" or let him "play" his drum along with his favorite musical tapes or CD's.



Using Color

Prepare a special coloring area for the child to use. When she has completed her picture, compliment her on her work. Cut out the finished product and hang in a visible place for all to see and admire.

- Encourage her to color by putting a crayon (color of her choosing) in her hand and pushing it across the page, pressing down to make the color show.
- Use large paper so she has room to move the crayon as she learns to manipulate it.
- Draw a simple line drawing of something visible in the room (a chair, a lamp) and let her color it in or let her choose what she wants to draw and color.
- Encourage her to talk about what she is "drawing". Use this time to encourage her to use her imagination to make up her own storyline.

Personal Hygiene

Provide the child with her own washcloth and towel and set aside a convenient place for her things to hang. Ownership for a small child creates a sense of being part of the larger group.

- Provide a stool where the child can see herself in a mirror over the sink
- Let her watch in the mirror as you brush and comb her hair, give her the brush and let her brush her hair, or let her brush your hair
- Show her, in the mirror, her dirty face and hands after a meal or anytime they are dirty
- Let her watch the dirt disappear as you gently wash her face and hands, then point out the clean face and hands in the mirror
- Encourage her to wash her face and hands after playing and before eating.

Setting the table

A small child is delighted to be part of the adult world. Give him things to do only as long as a high degree of interest is exhibited. Never overburden a little child with chores nor tax him beyond his ability to perform.

- Have the child help you set the breakfast table.
- Let him get the cereal boxes out, and carry them to the table.
- Show him how to put the bowls and spoons at each setting and let him place them at his setting.
- Name each object as he puts it on the table and ask him to name them.
- Discuss the colors and shapes you see in the table settings.
- Let him help stack the dishes (if they are unbreakable) after the meal or snack is over, and otherwise help to clear the table.

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8 Learning during Two to Three Years

As the child reaches the age of two, we are ready to teach him systematically and to stimulate his cognitive powers. This is the time when great gains can be made if parents will thoughtfully study this book and proceed with the planned learning activities.

Parents should review the basic principles and guildelines for teaching preschool children

This also is a good time to review some of the basic principles and fundamental guidelines for teaching preschool children. Reread chapters 2 and 3 wherein the attention span, the principles of reinforcement, and other basic concepts are described so that you will have in your mind the crucial information that will help you be successful. Ask yourself how well you are doing in following the concepts that are emphasized there.

General Observations of Characteristics of Two- to Three-Year-Olds

The two-year-old is anxious to please and willing to cooperate

According to most child development studies, young children, when they reach approximately 24 to 26 months of age, seem to shift to a phase in their lives when they have relatively sunny dispositions and an outgoing attitude toward others. Unlike his inclinations to be negative that came when he was about 18 months, the two-year-old usually seems to be well adjusted. At least he is more anxious to please and more willing to cooperate. However, at about 30 to 32

months of age, most children shift back temperamentally to a more contrary and antisocial disposition. Child care providers working in the early childhood education program will want to take full advantage of this period when the child is at relative peace with the world and has a considerable amount of emotional stability compared with the time just previous and the time coming up in a few more months.

The two-year-old child has more patience than when he was 18 months old. He is self-centered and may still have difficulty in sharing with others, but he will not be so overbearing and temperamentally unstable. He will be quite loving and affectionate at this age if he follows the norm. Therefore, he will be much easier to teach and to live with than he was a few months earlier or will be in six to eight months in the future.

The two-and-a-half-year-old displays changing moods

Most child development textbooks caution parents to be prepared for a considerable shift in the disposition and emotional balance of the 30- 32-month-old youngster. At this age, he is more rigid and inflexible. He is unwilling to adapt himself and he is often domineering and demanding. He will insist upon making many decisions and will strong-mindedly demand to do things that he is incapable of doing. There will be outbursts of violent emotion if the child follows the normative behavior pattern found in most two-year-olds. At this age most children are in conflict with themselves -- they will change their minds in opposite directions quickly. They will change from "I will" to "I won't" in a few seconds.

Many children at this age object to being interrupted when they are doing something. They want to persist in doing what they are doing and will refuse to change or adjust to suggestions from someone else. Children at this age seem to be less open to change and to adaptation to new ideas, new things, and new ways of doing things.

The child will be a great challenge to the parents/ ccg

The 2 1/2-year-old will be a great challenge to parents, and this must be kept in mind as we proceed in our program of early childhood education. Parents may want to read some additional reference materials since this age has been emphasized quite heavily in the child development literature as a stormy period in the life of a very young child.

Sometime soon after a child attains the age of three years, his disposition shifts and he will have a more cooperative and easy-going attitude toward life and toward his parents. The things to remember in working with the child during the period from two to three years of age is that the first six months of this period will be much easier than the last six. At any rate, this will be the case if the child follows the typical or normative pattern of behavior.

The three-year-old is more cooperative and has an easy-going attitude toward life and parents

Teaching Geometric Shapes

As the child reaches the age of two, he should begin to learn to recognize objects and to deal with ideas not directly related to his day-to-day living. A good approach is to reinforce his understanding of the circle, the square, and the triangle and to introduce him to other geometric shapes if he is ready for more advanced forms. Look for objects you can use and keep them handy. This should include geometric figures that child care providers can use to play with the two-year-old. Games should help the child to form a mental image of a shape and to identify it by its characteristics. Comparison of the characteristics of certain shapes helps the child to observe and draw conclusions.

Reinforce the child's knowledge of geometric shapes

Increasing Tactile Abilities

A second useful and stimulating game is played with a "guess what" bag, a small cloth bag into which the parent places a wooden geometric shape or a familiar object (some call this a "feely" bag). The child feels the shape in the bag, and through use of his tactile sense (sense of touch), is able to point to an object sitting before him that is similar. To a parent, this may seem to be an extremely simple exercise. For a two-year-old, it can be a very rewarding and stimulating game. It will help him build his powers of mental imagery. The game can be extended to include many everyday objects such as a spoon, a comb, a pencil, and so on. Parents should develop alternative ideas on how to expand these games and add interest and enhance the variety of such activities.

The game with the "guess what" bag will increase tactile abilities and expand mental imagery

Teaching Colors

Colors should be taught casually and through careful use of examples

Many two-year-olds are ready to learn colors. Indeed, many children at age 18 months may find an aptitude and desire to respond to color stimulation. Again, these experiences should be presented when the parent discerns that the child is ready and interested to learn. Some perfectly normal children do not respond to color identification experiences until they are 2 1/2 or even three years old. Parents should teach when the child is ready to learn, and should not push him for a response earlier than is natural and easy for him.

Colors should be taught on a casual basis and through careful use of examples. Get and use objects that are alike in every respect except for their colors. The parent can then say: "This is a red ball. Look at this; it is also a ball. But it is a yellow ball."

Many children grasp the concept of color easily; others find it difficult to learn

The parent can then take an object such as a ball or a block and proceed by saying: "Is this blue? No, this is not blue. It is red." It is important for a parent to present only one or two colors at a time in teaching colors. It is also important to concentrate on the most vivid colors and use the fundamental colors of black, white, red, yellow, and blue. Teach these colors first and then move to other colors.

Most children are able to grasp the concept of color quite easily. Others, however, may have some difficulty with this. Educators have found that some relatively bright children do have, for some reason or another, difficulty in grasping the concept of color. Be sure to be patient and give continuous exposure if your child is having difficulty in recognizing color. Keep in mind that you need not be in a hurry. Let the child's response tell you when to proceed.

Child care providers should use similar objects of one color when teaching color recognition

It is particularly important to remember that the concept of color is best recognized when two familiar objects are used, with the only difference being that of color. The child will then recognize that the word "red" refers to the color and is not the name of the object. Many parents fail to realize that if they present a new object at the same time they present a new color, they are adding to the confusion and making the instruction difficult for the child. If your child is having difficulty

distinguishing among colors, use only one or two colors at a time. Crayon marks can be used; colored plastic is a good tool. Other techniques can be devised by the creative parent to help the child to learn color concepts.

There is a simple way to check for color blindness

In unusual circumstances, male children may be "color blind." This can usually be detected if the child is confusing red with other colors such as brown and green. If you detect this in your male child, have him examined to determine if he is, in fact, color blind. Color blindness in females is extremely rare.

Use color identification games to stimulate your child to learn his colors. Do not, however, move to complex games involving multiple factors that include color knowledge until your child has learned at least the fundamental colors. You will confuse him if you are not careful in how you use some of the games.

Building Listening Skills

Earlier in this manual it was suggested that the child be given some introductory experience in listening and in building skill in discriminating among sounds. More experience in building this capacity should be provided during two to three years of age. This effort should begin immediately after the child passes the age of two. Following are suggestions in devising listening skill games: Different objects are placed in plastic containers, and the child is given an opportunity to hear the noise that the objects make when the container is shaken. He then shakes a series of containers and listens carefully until he finds an identical sound to the one he heard in the original container. Be sure to use variations of games such as this to teach this skill.

The child should start learning the names of letters of the alphabet

Soon after the child reaches the age of two, he should start learning the names for the letters in the alphabet, followed by some elementary phonetics. Therefore, it is important to begin at the age of two years to help the child develop the capacity to discriminate among subtle sounds. For this reason, we emphasize the use of games that will help build this skill prior to the time that the alphabet is taught.

Teach the child to listen intently

Parents should play whispering games with the two-year-old child by softly whispering words that he knows

well. An approach that has worked well with children of this age is to place four or five well-known objects before the child, sit behind him, and whisper the names of the objects. He should pick up the object as it is named. The parent should whisper very softly so that the child will learn to listen intently, thus helping to build listening capacity and ability to make auditory discrimination. Be sure to provide him with ample practice in listening.

Child care providers should not "push" the child to a point that he or she resists

Are You Pressuring?

Feelings and attitudes have a tremendous impact upon learning. Throughout this entire program of early childhood education, it is extremely important that we emphasize the fact that the child must not be *pressured to learn*. More important than any skill and capacity that he might develop is the need for the child to have a wholesome and positive attitude toward learning. He should look forward to the educational games that will be played with him. He should ask for opportunities to play them. Parents should not, in their eagerness to see their child advance, "push" the child to a point that he resists, cries, and objects to the whole matter of learning. This point cannot be emphasized too strongly. If you are sensitive and careful, the child's response will be wholesome, and the effort joyful.

Child care providers are urged to read once more the section in chapter 3 on reinforcement theory and how to apply it in the teaching and learning situation. Make sure that you have this fundamental principle clearly in your mind as you proceed to teach the child. Most of the learning experiences must unfold from play activity, and child care providers must develop the skills that make learning joyful. If the child is not learning, the fault usually does not rest with the child but with the child care provider. Thus if you are having problems, look to yourself first for a solution. You can be almost sure that your approach is not casual enough and that you are not making the process a pleasant experience for the child.

Most of the learning experiences must unfold from play activity

Parents who go through this program of early childhood education and succeed in making it joyful *will establish a relationship with the child that will endure*

for a lifetime. On the other hand, parents who fail in this regard many do considerable damage to the attitude and emotional response of the child. Teach with understanding, in a casual manner, as you and your child work and play together. Avoid pressure . . . be relaxed. This is not to say that parents should not discipline the child and expect and get certain levels of behavior and response that are reasonable and proper. It is to empathize that discipline and correction of behavior should usually come at a time other than the teaching and learning situation. Make the learning time the playtime in the home -- it can be this and also a useful and productive endeavor.

Parents will establish a relationship with their child that will endure for a lifetime

Teaching the Function of Various Objects around the Home

Parents often take for granted the various appliances and gadgets around the home that contribute to the quality of family life. They also assume that children will learn about these appliances and machines and that there is no need to formally teach their functions. However, if we are going to accelerate the understanding of the child so that he learns as much as possible as early as possible, it is important that attention be given to some deliberate instruction. Such teaching is part of our total plan to stimulate awareness and to generate intelligence and early sensitivity in the child.

Parents should teach functions of household appliances

After the child has reached two years of age, parents should teach functions of such things as the refrigerator, washer and dryer, vacuum cleaner, kitchen range, sewing machine, heating system, water heater, pipes and plumbing system, and other appliances and gadgets that will attract the interest and generate curiosity in the child. It is important to emphasize that we are interested in teaching the *function*. More details on how they work may be left until later. Parents should seek opportunities to expose the child to these concepts about the functions of the equipment and appliances around the home so that the child can realize that in our modern age, certain machines work for us.

Use this opportunity to teach safety

Parents should use this opportunity to teach safety. The danger of playing with electric power outlets, light

bulbs, and sharp objects such as knives or scissors should be taught very deliberately and carefully at this time. Simple tools such as hammers and screwdrivers can be profitably introduced to the child. When the mother or father is opening a can, the opportunity should not be missed to explain the function of the can opener. This can be particularly useful if the mother or father is opening a can to get food for the child when he is hungry. Similarly, when it gets dark and you turn on the light, explain to your child that the bulb lights up to help us see in the dark. If there is a piano in the home, the parent may want to show the child how pressing a key can make a sound and then show him the various tones on the piano. All of these experiences give depth and breadth to the intellectual exposure that the child receives.

Deepen the experience background of the child

These teaching and learning experiences will also provide an opportunity to expand the child's vocabulary. The concept of such contrast as hot and cold can be taught while explaining the plumbing system. The taste of cold milk or fruit from the refrigerator provides another ideal opportunity to teach, demonstrate, and deepen the experience background of the child.

Children should learn to return toys and other items to their proper place

Parents should be alert to seize upon these opportunities to broaden the experience and total exposure of the child through additional concepts and ideas. Rules about touching and playing with certain appliances and conveniences around the home should be set up at this time. If properly done, this understanding and rule making will help to make the home a safe place for the child.

Practical Experiences in Helping around the Home

At the time that the child is being exposed to the uses of appliances and gadgets around the home, he should begin to learn that there is a place for the things he will be using and that he will know where to find them if they are kept in the proper place. He should, for example, be taught how to open and close drawers and in what drawers to look for objects that he will want to get. Be sure to demonstrate several times how to

place his fingers on the handles or knobs of drawers and how to pull them open without spilling things. Have him practice this several times and repeat constantly until you are satisfied that he has mastered this simple technique.

This is a good time to begin to teach your child how buttons and zippers work and to help him button and zip up his clothing. Board frames with cloth attached can be used to help the child practice the buttoning technique. Likewise, the function of the zipper can be taught, and the child can have the opportunity to practice on a sample item specifically designed for that purpose. A practice frame can be made, or some old clothing items can be used.

Avoid frustrating the child by demanding more than the child can do

At this time, the child should also be encouraged to help dress himself. Many parents make the mistake of doing too many of these things for the child for too long in his lifetime. Even if he puts his stockings on backward or with the wrong side out, he should be practicing how to do this for himself. The same thing applies to shirts, blouses, dresses, underpants, and many other items. Encourage the child to be independent and to do as much as he can for himself. Needless to say, this should not be carried too far -- parents should be available to help. Avoid frustrating the child by demanding more than he can do. At first, the parents should do part and the child part of the work in the dressing and undressing process.

The lacing of shoes and the explanation that certain shoes go on certain feet can also be initiated at this time. This should be done gradually, with the child making a tiny contribution at the first experience and gradually growing in ability until he can place his feet in his shoes and even lace them up. Needless to say, it will be some time before the child will be able to tie his shoes. However, experiences in threading the laces in the shoes will be a useful developmental exercise at this time. The parent may desire to prepare an old shoe for demonstration and teaching purposes. This can be made more attractive and interesting by using some bright paint and some colored laces. Large wooden toy shoes are available on the market for teaching purposes, but an old adult-sized shoe will work as well and will cost nothing.

Threading laces in a shoe is a useful developmental exercise

Learning to Handle Liquids

Teach the child to handle a glass or cup with liquid in it

This is a time also to teach the child how to handle liquids and to pour from a pitcher into a cup. The parent should begin by having the child pour rice from a pitcher into a cup. After he has practiced to a point where he is adequately skilled, real liquids such as milk or water can be used instead of the rice.

Teach the child to handle a glass or cup with liquid in it. When spills are made, have the child clean them up with your assistance. Do not do all of these clean-up tasks for him. When he is unable to do it totally by himself, participate with him and allow him to do as much as he is willing to do. Do not pressure the child, chastise him, or lose your patience when he spills things at the table. Work with him gradually and praise him when he successfully handles liquids without spilling. If the positive reinforcement approach is used, the child will grow in this capability and attain a valuable skill that will be useful around the home.

Vocabulary Building

At this time, the child should learn the concept of sweet and sour

As the child is learning to feed himself, the child care providers should also look for opportunities to teach other concepts. The idea of making things sweet by adding sweet tasting juices can be taught at this time. It is easily demonstrated, and the sense of taste presents a wonderful opportunity to put over the concept. The contrasting taste of something sour (such as grapefruit) can also be taught at this time. These words and concepts added to his vocabulary will come quickly and easily in connection with the eating and self-feeding experiences.

Self-help exercises will aid in building the child's vocabulary

New words such as "handle," "glass," "cup," "spout," and "pitcher" can also be taught at this time. This is a good time to teach about such items as napkins and how to fold them, to demonstrate how a sponge or a cloth can absorb liquids, to show the child how waste food is disposed of and how food can be saved for use at a later meal.

Additional concepts can be given as the child learns such things as how to fold a napkin. He can learn how

to make a triangle, a rectangle, and a square while he has an interest in folding the napkin. His attempts at doing this will be very untidy for some time. Child care providers should not insist on perfection; the concept and the independence are the important things.

Parents should use these experiences to teach how to set a place at the table and where the various eating utensils should go. In addition to the vocabulary teaching experiences, the child can be shown how to properly set a table and how to arrange different objects on the table. The washing and storing of dishes can be taught at this time. This can include the use of soap and the demonstration of the entire process. The child's participation should be encouraged to the extent that his maturity will permit it.

Participation in household chores should be encouraged to the extent that maturity permits

Avoiding Boredom and Pressure

In teaching all of the foregoing practical skills and capabilities, the parent and child care provider should be very careful to avoid letting the child become bored. Parents and child care providers should remember that children of this age love repetition if it isn't overdone and should be alert to challenge the child. Do not proceed so slowly that he loses interest. On the other hand, do not move forward too quickly in introducing new materials, concepts, and skills. Adjust the exposure and the teaching moment to the interest and attention span of the child.

Adjust the exposure and teaching moment to the interest and attention span of the child

Be sure that your demonstrations are thoughtfully prepared and that they are presented when the interest of the child is high. Leave one item and go to another when interest is fading. Stop all teaching when it appears that the child is becoming frustrated and irritable. *Adjust the learning situation to the interest and readiness of the child.* Remember that it is important to let the child often choose what he wants to work with and to let him repeat what he is doing or permit him to stop when he so desires. Encourage the child to follow through, and teach as best you can the value of finishing a task once it is started. The skillful child care provider will be able to do this without pressuring or frustrating the child.

Adjusting the Level of Difficulty

Observe carefully to be sure that the level of difficulty is adjusted to fit your child's ability

Earlier in this manual we noted that the level of difficulty for the child should be adjusted in such a way that he is succeeding and doing properly those things that he is being taught most of the time. Remember that when the child is succeeding in approximately 80 percent of his attempts, the level of difficulty is approximately correct. This ensures that he is having correct responses often enough to give him adequate reinforcement and encouragement, thus giving him fulfillment in knowing that he is meeting most of his trials with success. Moreover, if approximately 20 percent of his attempts are incorrect, he is encountering a level of difficulty sufficiently challenging for the parent to know that he is continuing to learn. Be very observant to make sure that the challenge and level of difficulty are adjusted to fit these general guidelines. Since interest ebbs and flows from one day to another and from one situation to another, the child care provider must be constantly adapting and adjusting the learning situation to the varying circumstances. This will not be as difficult as it may seem once the child care provider and child are acquainted thoroughly with the temperament and technique of the other.

Teaching Counting and Number Concepts

Use the repetition method to teach the child to count

By using the simple repetition method of instruction, parents should teach the child to say "one, two, three, four, five." The child will soon learn to repeat these numbers. After the child has mastered this capability, parents should begin to give him experiences that will connect the number that is said with the concept of the number. This is done by helping the child to understand that the last number sound that he makes with his vocal chords tells him something about a quantity of objects. This should be demonstrated, of course, by using like objects (such as three spoons).

The parent may want to deepen the significance of the experience by using a "guess what" bag with three spoons in it. Devise your own by preparing a small cloth bag with a draw string. After the child has felt the bag with the three spoons, it can be opened when the

interest level is high, and the parent can help the child reach in and pull out "one, two, three" spoons. This can be repeated with other numbers. Make a delightful game out of this experience, and the child will be motivated to learn to count.

Parents should find incidental and casual ways to teach numbers and counting to small children. The author was interested to learn from a parent about the simple game of counting that was played by parent and child while walking up or down stairs. This is a good example of teaching while doing something else. Many number concepts can be learned by creative use of situations such as walking up a stairway and counting the steps as you go.

Child care providers should remember that number concepts are hard to understand

These number concepts should be taught gradually until the child can count to 10 and can also associate some of the numbers with the concept of the same number of objects. Child care providers should remember that number concepts are difficult to grasp. Since we are so thoroughly familiar with this simple concept, it is often easy for us to forget that to a person totally devoid of these concepts, a fairly high awareness is required to grasp the association of a number such as five with five objects.

Use objects found in the home to reinforce the child's counting capabilities

The child care provider should devise a number game from use of objects around the home to motivate the child to learn numbers. Be sure to follow through with the repetition and drill that is needed. You will be more successful if you develop number games that combine the sense of sight and the sense of touch. Number games will be of additional use later in this course when numerical symbols are taught to the child.

Teaching the Child to Speak in Sentences

The child should be urged to speak in more than one- or two-word utterances

By the time the child has reached 2 1/2 to three years of age, he should be able to speak in a few short sentences. Most of these should be simple statements of fact. For example, the parent may, at a particular teaching moment, ask the child to repeat the sentence: "The water is hot." The child should be urged to begin to speak in more than one- or two-word utterances.

This experience can be expanded to include short and precise sentences that will help him to communicate. You will help his communicative and cognitive power as you do this.

The child care provider should encourage the child to answer questions as well as to ask them

When looking at pictures, the parent or guardian may want to encourage the child to say: "Dogs have four legs." This simple spoken experience can apply the power of visual discrimination and the newly developed number and counting skills, and gives the child a chance to use what he has learned.

Using this conversational approach to teaching, the parents should encourage the child to answer questions as well as to ask them. Begin to ask questions and encourage responses that state a simple fact in a few short words. Strive to get simple, short-sentence answers. Be careful not to frustrate expression. Encourage use of words and conversation, but do not insist on sentences if it keeps him from speaking.

Using Children's Television Shows

Encourage the child to view children's television programs

In homes where parents have access to television, the child should be encouraged to view children's TV programs as an additional enrichment experience in learning number concepts. Parents will find that the instruction in this book, the number games, and TV shows for the preschool child (wherein numbers are taught) are all designed to fit well together.

Some Cautions to Follow in Teaching Numbers

Teach the concept of numbers with great patience

Some children have great difficulty in moving from the concept of merely repeating the sounds of numbers to understanding the basic idea represented by each number sound. Child care providers should take time in teaching this particular skill. Be sure to approach the task in a free and easy manner. Make it a playful game. Do not be too eager. Plant an idea here and there. Repeat often and with great patience. Remember that you have a full year from age two to three years. Even if the number games are not mastered by the age of three, it will not be a serious matter.

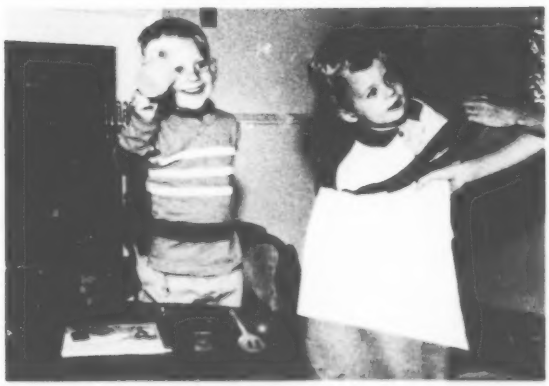
Since this is the child's first experience with mathematics, be sure that it is a pleasant and successful one. Remember the rule of reinforcement. (Remember that 80 percent of all the trials should be successful.) Avoid pressure. Teach counting and numbers only when the child is ready and eager to learn. Watch for those moments when you can stress a concept during the day-to-day activities of the child. Above all, make this first exposure to arithmetic a pleasing and reinforcing experience for the child.

Make the first exposure to arithmetic a pleasing and reinforcing experience for the child

Strolling/Walking

The outdoors presents a multitude of opportunities for reinforcing concepts of shapes, letters, and colors. A solid foundation of useful knowledge is being formed as you help the child to become observant of his surroundings.

- Take a stick and draw letters in sand, dirt or snow, as you do, ask the child to identify the letter, let him trace over the letter you have drawn.
- Draw shapes and ask him to identify the shape.
- Look for signs or ads of different shapes with large lettering, ask him if he can point to an "A" or any letter he is familiar with, or ask if he can find a square.
- Color is in abundance outdoors, point to a red sign and ask the color.
- Ask him to find a yellow flower or a green leaf.
- Make a game of finding a "round" pebble or a "square" sign.



Hidden Objects

Remember children progress at different speeds with various skills. Pushing her beyond her limits can impede progress. Let your pride in her accomplishments show but when she tires of a game, put it aside for a later time.

- Find a child safe bag, one of sturdy cloth the size of a grocery bag.
- Select two each of various objects such as a spoon, small book, or acorn.
- Put one of each object inside the bag and the other out on a table.
- Point to an object on the table and ask her to reach in the bag, without looking inside, to find the matching item.
- Alternatively, you can put all the objects except one in front of her.
- Place the one object inside the bag and have her feel the object and without looking in the bag, have her identify it.

Counting

Children do learn through repitition but as the chapters in this book continually point out, let the interest of the child determine the length of time these activities consume so that learning becomes a joy for all involved.

- Line up 2 to 5 stuffed animals or toys one at a time in front of the child.
- Count out loud as you point to each object, "1", "2", "3" and so on.
- Have her count out loud as she points to each one.
- Pick the animals up one by one and count out loud as you pick each one up.
- Then put them back on the table counting as you put each back.
- Have the child count as you do it again.
- Use different objects as well as opportunities to practice counting when playing, walking, or reading.

Guess Who I Am?

Let your enthusiasm show in your voice and in your actions by giving the child a hug when a correct answer is given. Children find great delight in pleasing those adults with whom they interact.

- Ask the child to listen very carefully as you describe an animal and see if he can guess what it is.
- Give descriptions such as "I have sharp claws, a long tail, soft fur, and I say meow, who am I?" Let the child guess what animal you are describing.
- You might say, "I have four paws, and a tail that wags when I am happy, who am I?", if his answer is incorrect add another clue such as "I say bow wow".
- Use animals you have seen on a recent trip to the zoo, or read about.
- Let the child describe an animal for you to guess.

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9 Additional Learning for Two- and Three-Year-Olds

From the age of two to three years, the child has an amazing capacity for learning. The challenge for the parent is to assist and stimulate the child to build her intelligence. This 12-month span is truly the "golden opportunity" to help the child build cognitive power that will be with her the remainder of her life. Be especially careful to make all experience a happy time of teaching and learning; use every day of this 12-month period to maximum advantage. Enrich the learning environment in the home and everything in the home in such a way that it will make the total environment surrounding the child a learning and growing laboratory. Keep in mind that you are working with a highly absorbent mind. Your finest opportunity to teach your child is when she is eager and responsive.

At this age, the child has an amazing capacity for learning; stimulate the child to build a great intelligence

The instructions that follow will help you to teach abstract concepts and ideas, the names for the letters of the alphabet, relationships, and positions. Study the material carefully and prepare to use the suggestions and instructions to the maximum advantage of the child.

Teaching Names of Letters

Learning the letters of the alphabet is likely the most difficult task the child has met so far

The learning of the letters of the alphabet will likely be the most difficult task that the child has faced so far in her early childhood education career. Child care

providers should begin by teaching capital letters only; lower-case (small) letters will be taught later.

Children learn the letters of the alphabet by sight characteristics

The child care provider should remember that the child has been experiencing since birth how to recognize and name different objects in her environment. She has to name them. She has looked at common objects around the home and learned how to identify them. In like manner, she will learn (by sight characteristics) the letters of the alphabet. She will not know the function of letters in the alphabet at this early stage in her development. But if she can recognize that the letter *A* is called "A" and has certain physical features by which it can be identified, she will have attained a first step in mastering this skill. Experience has indicated that the child may be ready to learn the letters of the alphabet at two years of age. Some, however, may not begin until 2 1/2 years of age; some children may require additional time -- and this instruction could easily be delayed until the child is three years of age.

Casually expose the child to letters and move along as he or she learns

Child care providers should begin teaching when the child is ready for such abstract learning. Do not be overly anxious about this. Casually expose the child and move along as she learns. At the outset, the lessons should be very short. Usually a five-minute exposure to letters will be sufficient. It is better to start with a very minimal exposure time and to stop when interest is still high.

Using Television Programs

Television programs, aimed at the preschool youngster, can provide extremely valuable enrichment material. The Children's Television workshop's "Sesame Street" series presents in an ingenious and stimulating manner the concepts of letters. If the child has been viewing programs of this type for some months, the parent may need to adjust the instruction level to the child's competence -- for she may already have learned several letters' names.

Teach only the names, not the sounds of letters

In teaching the names of the letters of the alphabet, be sure to refer only to the *names* and avoid teaching the *sounds* the letters can make. Such TV fare as the "pop up" commercials on children's cartoons teach the various sound of vowels, but this is aimed at the child

old enough to go to school where such abstract concepts are taught to the older child. Unless you find that the preschool child is being confused by such programs, ignore these TV lessons, and your child will do the same. Presentation of both name and sound concepts will be confusing to her at this age.

The child is not ready to read words at this time

Child care providers should not commit the common mistake of beginning by teaching that "*A* is the word 'apple.' " You should teach the simple concept that *A* is "A" because it is shaped like the letter *A*. The child is not ready to read words, and you will confuse her if you associate "apple" with the letter A because she will not understand that "apple" is an abstract symbol representing a food she eats. Avoid confusion by simply teaching the letter as such and the name for it.

Strategy of Teaching

Child care providers should do all they can to play games as they teach the alphabet

Teach three or four letters at a time in each session. Repeat and review often. Begin a new lesson by reviewing what was taught the time before. Do all you can to play games as you teach the alphabet. This will be a particularly difficult learning experience for the child, and the parent must move along very slowly. The lessons should be extremely brief but repetitious. There should not be long gaps of several days between the lessons. Try to arrange a small amount of exposure each day.

Point out how the letters differ from each other in sound and structure

As you draw the letters on paper point out the characteristics of the letters by showing the different parts and by indicating how one letter differs from another. For example, show how the capital letters *C* and *D* have part of a circle and show how they are different as well as alike. The same thing can be done with the letters *F* and *E*, and so forth. Think through different ways to teach identifying characteristics of each letter.

Remember that it is easy for children to confuse letters because many are similar. For example, *X* looks much like *K* to the unpracticed eye; *R* resembles *B*. Parents should anticipate trouble with some of these types of letters and show the subtle differences. You may point out, for example, that *R* has a "leg" that is "straight" but *B*'s is "round" or "bent." This can be illustrated with chalk on a chalkboard or with crayon or

Take extra time to show the differences in letters that resemble each other

pencil on paper. Be very patient and teach the letters slowly, gradually, and systematically. Think through how similar appearing letters could be confusing, and point out the differences in them. Use such terms as "humps," "bars," "curves," and "legs" in describing different characteristics of letters. By doing this, you can indicate that the letter *S* has two curves in it. You can show that the letter *H* has two legs with a bar connecting them. You can show that the letters *C* and *G* look similar and that they sound much alike, but you might indicate that *G* has a "shelf" on it. Continue to teach as you point out the differences.

Be sure to repeat and review what has already been taught

Be sure to repeat and review. As you go through some practice and drill, try to make an interesting game out of your activity. As you look at books around the home and at signs and billboards when you are driving in the car, encourage the child to practice looking for letters. This will help to keep her interested and will call her attention to the fact that she is surrounded with these letters that have messages for people.

Teaching Lower-Case Letters

Teach lower-case letters with the same precision that capital letters were taught

As you begin to teach lower-case (small) letters, it will become obvious that nearly half of these have the same difficult learning characteristics as capital letters. The letters that will take some drill to teach are the following: *a, b, d, e, g, h, l, n, q,* and *r.* These letters should be taught with the same precision that the capital letters were taught. Some lower-case letters (such as *b* and *d*) are so much alike that it may take a long time for the child to master the subtle differences. Do not spend too much time on them. Try to teach the differences and move along to other, more interesting things.

It will be a profitable review and practice experience to have the child now look for both capitalized and lower-case letters as she looks at books, signs, and posters. When traveling in the car, you may play a game by looking for letters on signposts, etc. Be sure to avoid teaching the sounds they make at this particular time. This will come later in our course of instruction.

Goal in Teaching Letters

The goal is to have the child recognize all capital and some small letters by the time he is three years old

The goal of our program of instruction during the period from two to three years is to have the child be able to identify all of the capital letters and almost all of the small letters in the alphabet by the time she is three years old. It may be possible, however, that the child will not be able to distinguish between the small letters *b* and *d* or *p* and *q*. Parents should avoid spending too much time on this problem. The ability to distinguish between these subtle differences will come later for most children.

Children who are constant viewers of programs such as "Sesame Street" will likely learn the letters of the alphabet more rapidly and may be ready to move on earlier than age three to additional learnings that will be suggested for the period of time from three to four years. Parents are advised to let the child move along as rapidly as possible. But you must avoid being overly ambitious and avoid pushing when helping your child master these basic concepts.

Be sure to bring variety into the instruction. Look for teaching opportunities and for chances to remind and review in your day-to-day experiences with the child.

Reading, Telling Stories, and Becoming Familiar with Books

Children should be read to regularly

Most children of this age enjoy looking at pictures in well-illustrated books. They enjoy bedtime stories. From the age of two years, children should be read to regularly. Be sure that you provide your child with this opportunity to share with you the exciting world of reading and the joy of learning and discovering through the printed page.

Show the child some of the details in pictures; help build the child's vocabulary at the same time

It is important that the child care providers look for opportunities for vocabulary building during this time. It is also important that some of the illustrations in the book be called to the attention of the child. Be sure to show the child some of the details in the illustrations and explain to her how these pictures depict some part of the story that is read to her. After you have read the story, give the child the opportunity to explain it to you.

Draw her out with leading questions. Ask questions that will help the child identify with the story and become a part of it. Teach her to be observant and to watch closely for meanings in illustrations that are familiar to her and will help her have identity with the story. The ability to get meaning from illustrations and pictures will be useful to the child when she enters school.

Without trying to teach reading at this time, instill in the child an understanding of the concept of reading

As the child is learning the alphabet, the parents should explain that the words being read to the child are made up of these 26 letters. Without attempting to teach any reading at this time, instill in your child an understanding of the concept of reading; it will be important to her in future years. Use this reading time as a period when some of the other learning activities can be supplemented and reinforced. Watch for number-teaching opportunities and for correlation of other subject matter during reading and story time.

Teaching Descriptive Words and Words to Help the Child Follow Directions

Devise games for building auditory discerning powers

Another important component of the early childhood education curriculum is for the parent to orally teach comparative and descriptive words and those words that will help the child understand and follow directions. Such concepts as big and little, fast and slow, hot and cold, soft and hard, tall and short, right and left, inside and outside, on and off, in front of and back of, above and below, first and last, and other sets of words that provide comparative and descriptive vocabulary power should be taught.

Those words that have to do with position relationships, size relationships, and location can be easily taught if you devise some games that will accelerate interest. See the practical applications section that follow for some ideas.

Avoid teaching too many words at a time

These vocabulary concepts about comparative and descriptive words should be worked in with other instructional activities throughout the 12-month period. Try, however, to avoid teaching too many of these words at a time. By using a gradual approach over a span of 12 months, you will be able to make considerable progress, and most children will have an under-

standing of these words by the time they reach the age of three.

Additional Instruction in Listening Skills

It is important that parents continue to teach listening skills to the child during this period of her life. Use the sound discrimination games. Try to devise other drills that will be interesting and fun for the child and will help her to have auditory discerning powers. This skill will be useful when she moves into phonics in the elementary school reading program. Be sure to work on this skill and do all you can to teach your child to recognize the subtle differences in sounds such as *F* and *S*.

Review of Reinforcement Theory

Parents should review often the material contained in chapter 3 on the educational value and power of reinforcement. As you move along to this stage in the child's development, it is particularly important that she have positive, reinforcing, joyful experiences in learning. This vital educational principle cannot be emphasized too strongly. It is recommended that you review the basic instructions on reinforcement and think about the strategy you have been using. Think through some additional strategies that may help to improve your application of the principles of reinforcement. Make sure that your child is enjoying her learning experiences by being casual and by avoiding the pressure of formal teaching as it is traditionally practiced. Be relaxed, and teach as you work and play together.

It is particularly important that the child have positive, reinforcing, joyful experiences in learning

Need for Commitment of Time from Parents

It may seem that the early childhood education program recommended in this book requires a great amount of time from the parents and guardians. If you develop the ability to teach while you perform other tasks, the act of teaching will not seem so demanding.

If you develop the ability to teach while you perform other tasks, the act of teaching will not seem so demanding

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Child care providers should remember that they are giving the child a priceless gift when they help build an apt and powerful intellect

It is important, however, for parents to persevere in systematically helping the child build a more powerful intelligence during these years when her mental capacity is so malleable. Parents should remember that they are giving the child a priceless gift when they help her build an apt and powerful intellect. If this is done early in the child's life and if she is given every possible opportunity to expand her cognitive powers, the parents will be rewarded in the knowledge that the child is systematically gaining confidence and gradually acquiring skills and capabilities that far exceed the infant not involved in such an active and dynamic learning environment. The time spent in studying the contents of this book and the time spent in learning how to apply the ideas in the practical applications that follow each chapter will be well worth the effort. Parents are urged to give the child the *total* program. They should persist in their efforts each day and strive for the patience and insight necessary for success in teaching the very young.

Individual Differences

Some children progress faster than others

Because there are great differences in the growth patterns of children, it is difficult for a book of this type to take into account the broad span of abilities and readiness at all age levels. Some children will be able to progress faster than is recommended in the book; others may move along more slowly. Some children -- in fact many children -- have intermittent patterns of tediously slow progress followed by a great surge of interest and learning growth.

Accept the child as she is and do not be alarmed if she is behind in the recommended levels

Parents should accept the child as she is and work with her on whatever level of ability she may have at any particular time in her life. They should not be alarmed if the child is behind the recommended levels of accomplishment contained in this book. The levels of skill are very challenging, and some children will not be ready at the suggested age for a specific activity. In almost all cases, if the parent is patient and understanding, the slow phases of learning will pass and rewarding learning experiences will unfold later in the child's life.

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Contrasting

Many opportunities will arise for this activity. Comparative descriptions can be found daily in many situations. Always make certain that you test any object's temperature and avoid anything either too hot or too cold for the child.

- Select a group of comparative descriptions to concentrate on for a length of time (one day or a week) and point them out when the opportunity arises.
- If you are using hot and cold, let her feel a "cold" air conditioner vent and then compare it to the "warm" sun coming in the window. Remark on the "cold" drink for snack time as compared to the "warm" vegetables on her plate.
- Or concentrate on fast and slow until she understands. Point out a fast car verses a slow truck. Compare when you walk slowly to running.
- Tall and short can be compared in trees, or cups, or children.

The Library

A trip to the library can be a rewarding experience. Here children's books on other lands, animals, nature, other cultures, and farm and city life can be found. Instill the importance of books and reading early. Read to him daily.

- Introduce the library to the child, tour the children's section to show him what is available.
- Most libraries have many activities for children such as story time. Find out the schedules for such events and take advantage of them.
- Obtain a library card for him and let him choose a few books on each visit.
- While at the library, give the child the freedom of choosing some books to look at, for as long as he is interested.
- Demonstrate proper care in handling books.

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Painting Letters

You can be certain that the child will spill or knock over some paint eventually so be prepared with old towels to clean up. He should have on appropriate clothing as well. When a spill occurs, wipe it up and proceed.

- Set up an area or table for finger painting. Use large sheets of paper and 2 or 3 different colors of the paint.
- While drawing capital letters in the paint, ask the child to name them.
- As you draw the letters, describe each part of the letter's physical characteristics, such as, the line is curved, or straight, or bent, or crossed.
- Then let the child try to draw the letter or trace your lines in the paint.
- Show him how some letters are similar in appearance, yet different. Draw an "F" and then show him how the "F" turns into an "E" by adding one line.

Left/Right

Understanding the difference between left and right is not only important, it may make the difference between life and death in an emergency when verbal instructions are given by those in charge at the time.

- Trace the child's hands and feet on construction paper and cut them out.
- Write "left" or "right" as appropriate on each one so that she keeps the correct side up.
- Use the cutouts to help identify the difference between left and right. For example, when standing, the big toes of each foot are side by side.
- Also when teaching body parts, use the idea of "left arm" or "right eye", etc.
- Use "left" and "right" in a variety of situations until the concept is understood and becomes a habit in everyday usage.

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10 Learning during Three to Four Years

Most authorities on early child development consider age three to be a delightful stage in the life of a child. He has outgrown the negative, resisting behavior typical of the 2 1/2 -year-old. He is becoming somewhat less self-centered and domineering in behavior, and is more willing to give and take and to cooperate.

The physical capabilities of the three-year-old allow easy movement and quick actions

The physical capabilities of the three-year-old allow easy movement and quick actions. He can successfully play many games that were baffling and difficult for him six months earlier. This increased physical capability adds confidence and helps the child gain more satisfaction and release from his tensions through vigorous physical activity and play. This same capability may lead him away from interest in the quiet type of activity necessary for learning.

The three-year-old is an extremely social child who is learning new words rapidly

The three-year-old is an extremely social person and will want to engage in activities and conversation with others. His language capability adds to the enjoyment he gets from this. He is learning new words very rapidly and is trying them out regularly.

Changing Behavior

Typical of the ups and downs of childhood is the change in the child when he reaches approximately 3 1/2 years of age. At this time, he shifts his behavior pattern considerably; another period of uncertainty and inability enters his life. Some children begin to show

signs of stuttering at the age of 3 1/2 . . . other fears creep into the child's mind and are manifested in his behavior. He will seem to be more awkward and uncertain of his physical capabilities than he was a short time earlier. Other activities irritating to parents such as nail biting, nose picking, thumb sucking, and twisting of facial expressions often appear at 3 1/2 years of age.

The child's uncertainty causes him to be jealous and at times belligerent toward parents and other members of the family. His emotional extremes and insecurity need patience and understanding. These facts of human growth and development should be kept in mind as parents proceed with the program of home-based, early childhood education. The child's need for additional affection and security should be provided by the parents, and teaching and learning activities should be adjusted to this stormy period in the child's life-cycle of growing.

Try to understand the phases and cycles that run through the growth patterns of the very young

There is no doubt that the feelings and emotional responses of children influence learning. Although space limitations in this book make it impossible to detail the *physical* and *emotional* development of the child, parents should understand the phases and cycles that run through the growth pattern of the very young. As we focus our concern on the child's mind, we must remember that our total concern is the all-important education of the child. We want the child to be mentally active and to have mentally stimulating experiences that will result in a permanent increase in intelligence and learning capacity.

Teaching the Concept of Time

Teach the days of the week and the time-of-day concept casually but carefully

The three-year-old should begin to form some ideas about time and how we measure and live by the clock and the calendar. Parents should begin to talk about the seven days in the week and to teach the child to pronounce the names of the days and repeat them in the proper sequential order. Although he is not ready to learn to tell time, he should know that we have clocks and watches that help us to meet our commitments and to do things when they should be done.

The child should learn that there are seven days in a week and that a day relates to daylight and darkness

that come regularly one after the other. The child should also learn that there are certain things that we do in a regular and routine manner . . . that some days are for some functions and others are for other functions.

Focus extra attendion on teaching the concept of today, tomorrow, and yesterday

The child should also be taught the concept of yesterday, tomorrow, and today. He should know, for example, that tomorrow is always the day that follows today. If he has learned the names of the days of the week in proper order, he will be able to conclude that the terms "yesterday" and "tomorrow" are also specific days of the week, depending upon what today is.

For children having difficulty understanding what today, tomorrow, and yesterday mean, parents should devise a method of giving concrete illustrations. By placing cardboard squares (with the names of the seven days of the week printed on them) on the floor, the parent can ask the child to stand on one square. Then if the child has learned to repeat the names of the days consecutively and in proper sequence, it will be easy for him to look behind himself and conclude that yesterday was Thursday because he is standing on today which is Friday.

If the child is ready, teach the names of the months

Parents may want to follow this teaching and learning experience by teaching the months in the year; however, these lessons can be delayed until the child has more maturity and can more readily grasp the concept. (It will be easier for him to understand about days because they come and go often enough to become part of his awareness.) Because months of the year do not repeat in a cycle, from the child's point of view, it is harder for this concept to be taught. The response should let the parent know if the child is understanding the idea of the months of the year.

Teaching and Learning Experiences about Numbers

Since mathematics is pure logic, methods must be devised to illustrate these concepts

As parents teach additional arithmetic skills to the child three to four years of age, they should remember that abstract thinking is very difficult for him at this time. Since mathematics is almost pure logic, methods must be devised to illustrate through the manipulation of ac-

tual objects the mathematical concepts that are being introduced to the child.

Cognitive power is developed through the experience that comes from acquiring kinowledge

Building Cognitive Powers

The experiences in gaining mathematical concepts early in life will be extremely valuable to the child. Parents should keep in mind that our primary purpose is to build a more powerful intelligence. The gain from pursuing the knowledge and attaining the skills in this early childhood educational program will be of more worth than the knowledge itself. This cognitive power is developed through the experience that comes from acquiring knowledge.

More than eighty percent of the intelligence that a human has at maturity is formed prior to the time he enters school

It would be much easier, from the child's point of view to simply gain knowledge, to wait for him to become more mature before teaching him some of the abstract facts of mathematics. Such experience would occur after he has passed the age of six. However, this would be too late for the parents to take full advantage of nurturing his basic intelligence. Keep in mind that research has proved that more than 60 percent of the intelligence a human has at maturity is formed *prior to the time he enters school.* It is the initial care and the systematic development of this intelligence which we seek to instill in the parents with this program of early childhood education. Moreover, knowledge and skill are valuable to the child as he enters his school experience.

Understanding Numbers

Be sure to count to the child so that he can understand

From the time a child is three to four years old, be sure to count to him so that he *understands.* Children who can repeat the names of numbers in sequential order may not be able to count with understanding. Parents should make sure that this ability has been acquired from the learning experiences given to the child.

Groups of identical objects should be counted together by the parent and the child in order to gain this skill. The important thing to remember is that the child must know that when he is counting a group of objects,

the last number he repeats in his counting will tell him something about all of the objects he is counting. If, for example, he is counting to six, he should remember that the sixth square or circle tells him that the one immediately preceding it was five and that the first one he touched and counted was one. This seems simple to a parent, but it is a difficult concept for a young child to grasp.

Do not assume too quickly that your child understands what you are trying to teach about numbers

Over very brief periods of time lasting not more than five or six minutes, the parents should work regularly and systematically with the child in helping him with his knowledge of numbers. Be sure to ask questions and participate in the experience in a way that will keep the child interested and excited. Be patient and do not assume too quickly that the child has understood what you are trying to teach. Children are skilled at mimicry, and parents are surprised many times to find that what they have taught as a matter of logic was only reiterated by the child by his repeating or mimicking what the parent said.

In difficult circumstances, it may be helpful to place objects to be counted on the living room floor with six inches to a foot of space between them. The spacing should be even, but the objects should be well spaced - systematically arranged in a way that will not confuse.

The child should learn to count up to 10 objects and to have the actual understanding of the concept "ten" when he counts out 10 objects. Be careful about the natural inclination of a child to count one object more than once. He needs to follow certain rules of procedure established by the parent in all of the counting games.

Watching the Attention Span

The attention span of the three-year-old is not long

Parents should remember that the attention span of the three-year-old is not long. Also, he can become engrossed in something besides the mathematical concept very easily. If, for example, you have him picking up and counting squares or circles, the child may become absorbed in manipulating the blocks or other objects that you are using. It is often wise to play with the child for a while to help him become familiar with ob-

jects as such before having him shift to the counting experience.

The child needs to learn the rule that he stops after counting to a specifically given number

Additional Mastery of Numbers

After the child has learned how to count and has the meaning behind what he is doing, he is ready to learn some other important concepts about numbers. He should be given a certain number of objects and asked "How many?" Then one object should be taken away and he should be asked "Now, how many?" This should be followed by the practice of giving him a large number of objects and saying "Give me three," He needs to learn the rule that he stops after he has counted to the number three. This will take some time and will not be as easily mastered by the child as many parents think. Considerable repetition will be useful to the child and should be provided when the child is anxious and ready to play the counting game.

Repetition is important for boys and girls of this age; review numbers often

Repetition is important for children of this age. At bedtime and at other convenient times, the parents should spend a moment or two reviewing numbers. This should be done casually and almost incidentally as a means of providing enough drill and repetition for mastery. A great amount of practice will be very valuable at this age. Provide the review experience at every opportunity and give as much practice as the child is able to absorb without frustrating or pressuring him.

Counting to Thirty

Teach a few numbers at a time until the child can count to thirty

As soon as the child has attained mastery of numbers up to 10, the parents should help him to count to 25 or 30. This can be done in somewhat the same manner as the numbers from one to 10 were taught. Teach a few numbers at a time, beginning with 11 and going on from there. The child should understand how these numbers fit with the others and that the same counting experience can be applied. Through repetition, practice, and teaching approximately five more numbers at a time, the child will soon be able to master the additional numbers.

Learning Number Symbols

Teach the written numbers as you taught the letters of the alphabet

Only after we know that a child can count to at least 10 and only after we are certain that he understands that the sound symbol made with the vocal cords represents a number, will we be ready to teach written number symbols. Parents should think about the sound symbols made with the voice and the written symbols of the numbers. The child has often learned that the sound made with the vocal cords for the number three represents that number. He knows that this sound means something, and he knows what it means. It is then a simple matter to teach that the written number "3" is merely another means of communicating the basic idea of three.

At a particular moment when the child is interested and it appears that his attention span is right, the written number symbols can be presented. The parent should explain certain distinguishing characteristics of each number. Use some of the same techniques utilized in teaching the letters of the alphabet in chapter 9. Do not present too many concepts at a time, and use opportunities to repeat when the child is interested and when you have his attention.

Using TV Shows and Games Using Household Items

Use television programs as follow-up in teaching numbers

The written symbols for numbers are interestingly presented in "Sesame Street" and other TV shows. Parents may want to use this means for follow-up, tutorial sessions with the child. Games may be devised that use common items found around the home to teach written number identification. Look for ideas in the practical applications to provide definite and concrete experiences that use two or three of the senses. Our purpose in teaching numbers and number symbols is to have the child become thoroughly familiar with numbers zero (0) through 10 and to have him be able to recite the numbers from one to 30.

The child should be able to count to thirty from any given number

As you play number games with your child, try to help him do the following:

(1) Make sure that he is capable of number recitation from one to 30. This simply means that

he can recite the numbers in consecutive order and is able to count from one to 30 flawlessly. In addition, his number recitation skill should make it possible for you to give him a starting point among these numbers, and he should be able to count from the number you give him to any given higher number. For example, if you gave him the number three and told him to count to eight, he would be able to count from three to eight by naming number four and going on, stopping at number eight.

The number matching skill should have been acquired by now

(2) The child should have number matching skills. When you give him a printed numeral, the child should be able to select an identical numeral or number from a set or group of printed numbers.

(3) The child should have number recognition skill. When you give him the verbal label or symbol for a number, the child should be able to select the appropriate number from a set of printed numerals. For example, when you say the number four, the child should be able to go to a set of printed numbers and select "4" from this set. You may want to give him drill and practice in this by devising some interesting games where he will be successful most of the time and where you can give him some praise for his accomplishments.

The child should have number recognition skill

(4) The child should have number labeling skill. This is the opposite skill from number recognition. It means that when you give the child a printed numeral, he will be able to look at it and give the verbal label or say what the printed numeral is; for example, you hand him the number "6" or you point to the printed number "6" and he is able to say "six."

The child should be able to look at a number and recite its name

Through numerous games and repetitious exposure to concepts, the child should have these skills well mastered. Our objective will be for him to reach this capacity by the time he is four years of age. (Some

children may take longer than this, and parents should adapt to the child's level of interest at the time without undue concern if a few extra months are required to reach this capability.)

Another skill should also be mastered: The child should be able to enumerate. When he is given a set or subset of up to 10 objects, he should be able to count them and then tell how many there are. For example, if you pour seven blocks from a box onto the living room floor and ask him to tell you how many blocks there are, he should be able to count them and come up with the number seven. This requires him to be able to recognize that the last number reached in his counting is the total number in the set of objects. Your suggestions should be "Count the blocks. How many are there?"

The child should be able to count items you have placed before him

Although it is not essential, parents should also try to teach some additional counting skills. For example, when you arrange a group of objects in a circle, the child should be able to identify the first object that he counts by marking it or moving it out of the circle so that when he finishes counting, he will know that he has counted all of the objects. The same strategy can be used when counting a group of objects in a stack by teaching him to pick them up and place them, one at a time, in another stack.

The child must also develop the ability to recognize equality in numbers. He should be able to associate a group of four objects as equaling the number four. He should be able to match a group of five objects with an equal number or grouping of identical objects. Through practice in games, he should attain the concept of equality.

Teaching Visual Discrimination

Children must be trained to recognize subtle differences in objects

In preparing the child to have all the skills that will make learning to read less difficult, you must keep in mind that it is very important for the child to learn to recognize objects that are almost the same except for one or two subtle differences. In working with the simple geometric shapes, parents should draw triangles, circles, and squares with slight deviations in them. The child should be taught to recognize quickly

that one of the geometric shapes has a slight difference in it.

Children of this age should be able to recognize parts of the body in pictures

A child should be given exercises in finding objects in a picture. Since he has learned the parts of the body, he should look at pictures of mothers and fathers, boys and girls and point out such details as nose, ears, knee, and so forth. He should be taught to look for expressions on people's faces on a picture page that may depict happiness, anger, crying, etc.

Parents should strive to help the child pick up information quickly with his eyes. Practice at this time in his life will give him an extremely valuable skill. Such practice does not always need to be in formal teaching situations. Opportunities (in the grocery story or while traveling in the automobile or walking in the neighborhood) will arise when the child can be taught to look for details that will help him build visual discrimination power. If the parent has this objective in mind, numerous opportunities will arise to develop this skill in the child without much effort or pressure on him. It is a skill that can be acquired almost incidentally if parents are alert to use valuable teaching situations.

Be alert to valuable teaching situations giving the child practice in picking up information with his eyes.

Building Additional Auditory Discrimination Skills

Earlier in this book we suggested activities to build skill in auditory discrimination. As the child approaches four years of age, the parents should provide additional experiences that will help to build this important skill as a prelude to reading instruction. The parents should devise games that will help the child to copy rhythmic patterns. Children of this age love rhythm, and they will respond readily to rhythms and beats that have a pattern to them. For example, rhythmic patterns can be taught by the parent speaking or singing a pattern to be repeated by the child. Following is an example:

Children of this age love rhythm

> The parent will say:
> "Da da, dot dot, da."
> This is said in rhythm with the "da" sounds spaced out long and the "dot" sounds spoken very quickly -- one rapidly after the other. (This is done similarly to telegraphic codes of

dots and dashes, where the dots are rapidly transmitted and the dashed are more slowly given.)

Other rhythm patterns such as the following can be given for the child to repeat:

(1) Dot dot dot dot, da da. (Say the fours "dots" rapidly and the two "das" slowly.) You may need to repeat this several times at first.

(2) Da da da, dot dot, da. (Say the three "das" slowly, the two "dots" rapidly, and the last "da" slowly.)

Any number of similar patterns will give the child practice in hearing and giving back rhythmic patterns. The parent may also want to invite the child to give the rhythmic pattern for the parent to repeat back to the child.

The child should also be taught to rhyme words. This simple exercise can be carried out by giving the child two or more words and stimulating him to select or supply a third rhyming word. This activity may be associated with the rhythmic activities described above.

Describing the Properties of Objects

The ability to describe the properties of objects should have been acquired by now

Before the child reaches the age of four, he should also have some experience in describing what educators call the *properties* of objects. Properties are the distinguishing characteristics of an object. For example, the child should be able to look at several different triangles cut from plastic or wood. He should then be able to give the object's color and describe its relative size as compared to a number of other triangles that may be larger or smaller. He should also be able to examine its thickness and distinguish this characteristic from other triangular-shaped objects presented.

The child should have experience in describing the properties of other things with which he comes into contact. This may range from objects of wearing apparel to different dogs and cats in the neighborhood that may be alike but different in some respects.

Following is an example of the child's description of a ball that he has just examined as compared to another ball that he owns:

"The new ball is red and my ball is blue. The new ball is softer because I can press it in easier with my hands. The new ball bounces higher. The new ball will go flat because it is filled with air. My old ball is more solid, and it is not filled with air. The new ball has triangles on it, and my old ball has stars and circles on it."

The child should be able to describe objects and then to make comparisons to things that are familiar

The child should be taught to describe all of the properties that can identify a particular object, and make comparisons with other objects familiar to him.

As the child practices building this capability, he will also have an opportunity to continue to build his vocabulary. He needs to be able to express himself, and he needs to be able to observe and describe what he observes with a considerable amount of accuracy. By building the skill to distinguish among different objects and to describe the properties of them, he will develop a number of capabilities that will be useful to him throughout his entire lifetime of learning.

Reminder:

In the interest of avoiding awkward sentence structures, "parents" has been used to refer to parents, guardians, child care givers and other child care providers.

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Strolling/Walking

Habits of observation begun now will provide for a life long experience of learning. Our everyday world is brimming with excitement just waiting to be experienced. As you walk with the child concentrate on one sense a day.

- One day concentrate on smell; compare a flower that has a strong smell to another one that does not, smell freshly cut grass, or a backyard barbecue.
- Ask her to tell you when she smells something; identify the smell together.
- Another day, listen for sounds and let her identify them. Compare quiet sounds to loud sounds and the whispering wind in the trees verses a dog barking.
- Let her touch and compare the textures of nature, the rough bark of a tree verses the soft petal of a flower.

Descriptive Words

Always remember to have fun with any activity. If the child is becoming bored let him play with objects of his own choosing. Later you can continue with the descriptive words when he may be more receptive.

- Combine a mixture of items that are easy to handle and place them in a large container or grab bag. Use things such as a "rough" rock and a "smooth" rock, a "big" ball and a "little" ball, and a "soft" toy and a "hard" toy.
- Ask the child to get a "soft" toy from the container, then a "rough" rock.
- As soon as the correct item has been found, return it to the container before asking for the next one.
- Try hiding the same items in different places and ask her to look "behind" the chair for the "big" ball, or "under" the table for the "hard" toy.

Calendar

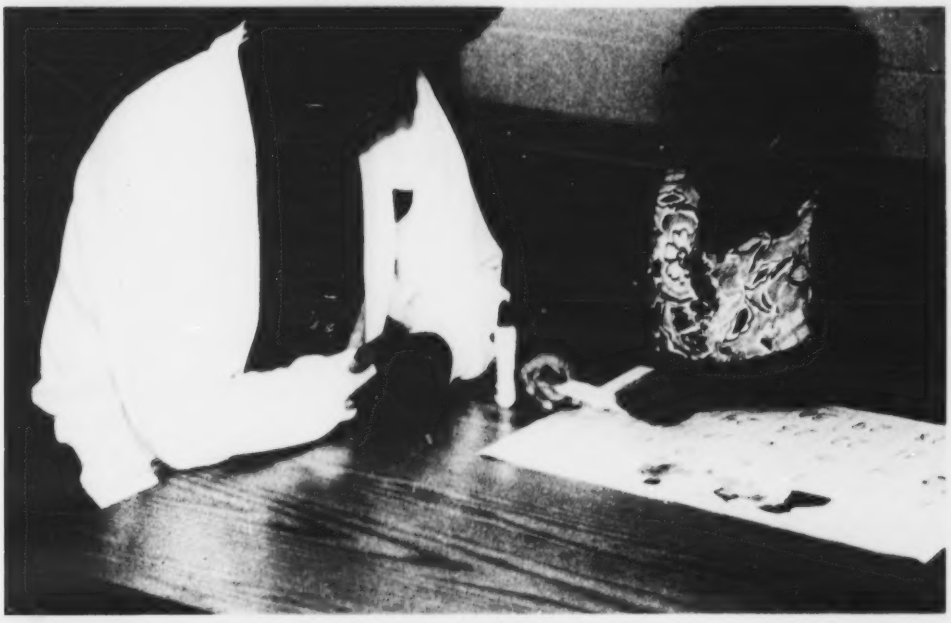
Find a highly visible place, such as on the refrigerator, to hang a calendar that you have created by letting boxes represent each day. You may want to revisit the calendar at a moment's notice as an opportunity presents itself.

- Using crayons/markers and a poster board, create a week's calendar.
- Daily, let him mark and then explain how the marked box represents "today".
- Continue each day until the week ends, then create next week's calendar.
- Continue until he understands that 7 boxes represent a full week.
- Introduce the concept of yesterday, today, and tomorrow by making a simple sketch or placing a picture of a particular activity or event on each day's box.
- Discuss the events to show they relate to the current day, "this happened last night, and that was yesterday" or "we will do that tomorrow after breakfast".

Rhyming Words

Many children's books contain phrases that rhyme. You may want to apply the technique explained below to the reading of a book by asking the child to tell you when he hears words that rhyme.

- Ask her if she wants to play a game of finding words that sound alike.
- Call attention to the words "man" and "can" and how they sound alike.
- Next ask if she can think of a word that sounds like "hat".
- If necessary, help her with some clues "I know a word that sounds like "hat", it is an animal that has whiskers and says meow". Continue to provide clues until she can come up with the correct answer, "cat".
- Ask her to choose a rhyming word from a group of 3 by saying "what word sounds like chair?... dog, hair or tree?"



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11 Additional Learning for Three- and Four-Year-Olds

Not only should the child three to four years of age be able to recognize the letters of the alphabet, she should develop the ability to recite the alphabet from A through Z. She should also be able to recite the remainder of the alphabet when given a particular letter; for example, if her parents give the letter O, the child should be able to continue, in consecutive order, the remaining letters in the alphabet to Z.

The three- to four- year-old child should be able to recite the alphabet

Additional Skill Building In Learning Letters

In addition to alphabet recitation skill, the child should also have more practice and drill so that she can flawlessly do the following:

The child should have letter matching, recognition, and labeling skills

(1) The child should have letter matching skills. When given a printed letter, she should be able to select an identical letter from a set of printed letters set before her.
(2) The child should have letter recognition skills. When she gets the verbal label for a letter, she should be able to select the appropriate letter from a set of printed letters; for example, if she is given the letter Q, she should be able to go to a group of letters and select a Q. This

should be done after the parent repeats the letter "Q" verbally.

(3) The child should have letter labeling skills. When she is given a printed letter, the child should be able to look at it and verbally give the name of the letter; for example, when handed the letter K, she should be able to look at the letter and say, "This is K."

Teaching Elementary Phonics

Phonetic sounds of the alphabet should be started

Some children, before the age of four, will be ready to learn the phonetic sounds of the consonants. They may also be ready to learn the long vowel sounds (the sounds of the vowels that "say" their own names -- a, e, i, o, u).

After the child has mastered the letter recognition, letter labeling, and letter matching skills described above, she is ready to begin a few elementary phonetic sounds. These should be taught very casually, with games devised to make fun out of learning. It is easy for parents to press too hard in teaching phonetic skills. The light-handed, casual touch is recommended. Teach in an incidental and off-hand way as you talk, play, and work with the child in her daily routine.

Words should not be taught at this time, only letters and sounds

The parent should begin teaching the sounds that letters make by explaining to the child that, in addition to a letter having a name, it also makes a sound. (Later, the parent may want to explain that some letters make more than one sound.)

Parents should *not teach words* at this time, but merely repeat the consonants (*b, c, d, f, g,* etc.) and have the child learn through practice and drill and through continuous games to give not only the name of the letter but the sound it makes. Although the long vowel sounds are easily taught -- since these letters say their own names -- they can be taught more easily and casually after the sounds of the consonants have been mastered by the child.

Make sure that each sound is produced properly

Make sure that each sound is produced properly. Pay special attention to the fact that some letter sounds are spoken and some are whispered. For example, the sounds for *F* and *S* are whispered sounds. However, *L,*

M, N, and *R* require voice sounds. Games and drills through use of books and toys will help to motivate the child to learn while she acquires her first phonetic skills.

Caution in Teaching Phonetic Skills

Child care providers should delay teaching phonetics if the child has problems learning this skill

Some children will acquire phonetic skills readily, while others may have a difficult struggle. Child care providers should delay teaching these skills if the child encounters problems. The emphasis should be on the casual and almost incidental teaching of some phonetic skills as you play with your child. It is not essential that the child master these rudiments of phonetics by the age of four if she needs a few more months to be ready. Avoid pressure, but teach as you live and play with your child in your home.

Keep in mind that our program is an ambitious one and that the child is receiving many stimulating learning activities. Be careful not to press too hard. Permit the child to move along at a natural speed for her.

Additional Strategies In Teaching Phonetic Sounds

The vowel and consonant sounds can be taught

As you teach the child the sounds of letters, you will find yourself using vowel sounds with consonants; for example, *B* has the sound of "bee." The strategy is to teach the child to drop the final vowel sound. Make the sound and teach her that the sound is "bbb." In like manner, when you give the name for *D,* you say "dee," but when you teach the sound for this consonant, say "ddd." The same applies to such letters as *T, V, J, K,* and others.

Simple drill on the various sounds of "c" and "g" can be touched on at this point

In teaching the sounds of letters such as *F, L, M, N, R,* and *S,* remember that the name of each letter starts with a vowel sound and ends with a consonant sound. For example, *F* is pronounced "eff" and *L* is "ell." You pronounce *S* as if it were "ess." In teaching the sounds of these letters, teach the child to drop the vowel sound and merely say the sound that is left when the vowel is omitted. Practice this several times and be ready to help the child avoid confusion when you teach these

fundamental phonetic concepts. (Be sure you understand these concepts as you teach.)

The child should be taught that there is a group of letters which make more than one sound. Tell her that the letter *C* sometimes has a "sss" sound (as in the word "cent") and that *G* sometimes sounds like "jjj" (as in the word "gentle"). Tell her that these letters and others sometimes make different sounds, but do not spend too much time explaining this because she will learn them later and should not be confused at this time. (The only purpose in mentioning these exceptions to her here is to prepare her for subsequent instruction so that she will not be bewildered but will remember later in her learning experiences that exceptions were mentioned to her.)

Parents should teach the child her name and address

Conversations between Parent and Child

Research on learning has taught educators to recognize the value of response and action in learning. Parents and guardians should encourage the child to be responsive and to participate through action and through initiation of activity. Many simple facts and many mind-stretching experiences can emerge from an alertness to learn vocabulary, conversational skills, and thinking processes all at once. The child should be taught her name and address. She should know the name of her parents. She should learn concepts such as brother, sister, mother, father, husband, wife, aunt, uncle, grandmother, grandfather, son, daughter, grandson, granddaughter, and cousin. All of these relationships to people will be helpful to the child in stimulating her vocabulary, her thought processes, and her conversational skill. Parents should keep a steady flow of conversation that adds facts and enriches the body of knowledge for the child.

Child care providers should encourage conversation by the child

Ready for a Game of Checkers or even Simplified Chess?

Some children with unusual ability may be ready for a stimulating and competitive game of checkers or chess. A parent who finds if difficult to challenge the

Proceed with caution in challenging the mind of a rapid learner

mind of rapid learner may want to experiment cautiously to see if the child at this age would benefit from the mental stimulation of checkers or even a simplified game of chess. If you decide to try at this early age, be careful about pressure. You don't want to harm your child's eventual readiness (see Chapter 14) at a later time in her growth and mental development.

The idea is to challenge the child with opportunities to reach the outer limits of potential. This suggestion is "tossed out" at this time for those few who may need the additional challenge.

Summary

The child who has been exposed to the full range of learning experiences recommended in this book (to age four) will have had an opportunity to grow intellectually far beyond that of the typical child of this age. These experiences should greatly enhance her intelligence and her ability to learn.

These experiences should greatly enhance the child's intelligence and ability to learn

We have emphasized a number of times that learning should be fun, and have placed considerable emphasis upon learning through creative play. We have cautioned against pressure and emphasized the need for successful experience and for wide application of the reinforcement theory. We have stressed the necessity for adjusting the level of difficulty to the capacity of the child and again emphasized that the child, through her responses, should indicate to the parent how to adjust the teaching and learning program.

We have emphasized that individual differences and variations in the growth cycles of children make it impossible to recommend a standard of performance applicable to all children. Therefore, we have attempted to recommend those tasks and outline those learning skills that will meet the needs and match the capabilities of the typical child. The parents should adapt and adjust.

Make adaptations and adjustments as you teach

Children love to play and interact with others. This program of early childhood education assumes that play can be creative and that learning can be a game. Therefore learning and play can be one if the parent judiciously uses the natural inclinations of the child for this purpose.

Assess your experiences to this point with the child

As we conclude the fourth year in our program of early childhood education, we recommend that the parents review some of the fundamental principles of teaching and learning for the preschool child. Asses your experiences to this point with your child, keeping in mind that you have another excellent year before the child is ready for kindergarten and formal schooling. Be prepared to make the most of this final year in your program of home-based, early childhood education.

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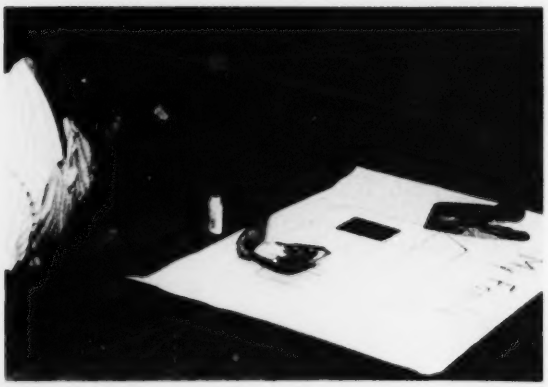
Letters/Numbers

Learning to recognize letters and numbers in written form is a gradual process and will come with time. Remember it is normal for different children to learn at different speeds. Be patient and relaxed when teaching this skill.

- This is a good time to teach the ABC song if it is not already known.
- While looking at a book point to a "B"; see if the child can find another "B". Make a game of finding and gradually teaching the entire alphabet.
- After success with the above, use the idea that "I see a B, can you find a B?"
- Reverse roles, let the child pick out a letter, name it and ask you to find it.
- Find a "T" and ask the child to find and count all the "T's" on that page.
- Or point to a particular word and ask how may "T's" are in that word.
- Do similar things to teach identification of printed numbers as well.



Family

This activity will increase vocabulary, encourage thought processes and enlarge conversational skills. It will also give you an opportunity to explain what a "stranger" is, how to identify one and how to react to one.

- Help your child make a "family album".
- Collect photos of family members, parents, brothers and sisters, grandparents, aunts and uncles, and cousins.
- Draw your house on a large piece of paper using simple shapes.
- Paste pictures of family members living in the house to the windows in the drawing. Write the names and relationships below each picture such as "my sister Brittany" or "my brother Ryan".
- Revisit this activity often. Occasionally have her explain it to special visitors.

Family Cont'd

This activity will also provide the opportunity to introduce other ideas that can be grasped at this age, ideas that may be unique for your family or circumstances. Create a real sense of the joy in the extended family.

- Write your address below the house in the drawing; take him to the mailbox and show how the numbers of the address match the numbers on the mailbox. Take him to the nearest street sign to show him the street name.
- Then make a drawing of another house for the grandparents, or others important to the family. Place their photos in the drawings again with the names and relationships.
- Below the house, write the name of the city and state where they live. Show him where that city is compared to the city he lives in by looking at a map.

Conversation

It is important to encourage the child to express himself through conversation. Give him plenty of opportunity to discuss feelings and to ask questions without interruptions from TV or other distractions.

- As you are getting the child ready for bed, encourage him to discuss what he did during the day.
- Ask leading questions about activities and events such as, "which of your friends did you play with today, and what did you do with them?"
- Ask him to explain different feelings he had during the day. Was he happy at the playground, or sad when his friends left?
- Plan for tomorrow. Discuss what day it will be and anything that has to be done. e.g. "Tomorrow we will go to the grocery store; what do we need?"

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12 Learning during Four to Five Years

With the proper background for learning, the child will be able to learn rapidly

By the time your child is four years old, he will have reached a level of capacity and performance that will make it possible for him to learn at a very rapid rate, particularly if you have worked with him through the earlier months of his life and if you have presented most of the stimulating and nurturing experiences described in this book.

Characteristics of the Four-Year-Old

The four-year-old is very independent and, if he is typical, will also be a bit defiant of parental instructions. By the time he has reached this age, he can converse rapidly. He will have picked up some "earthy" language if he has been permitted to play with older children who use profanity. He will also be prone to express his frustrations and to blame his parents for his own mistakes.

Now is the time to begin a slightly stronger set of rules of behavior

Most four-year-old children have very unusual flights of imagination. Studies of early childhood development describe the four-year-old as a "teller of lies." Since most four-year-olds enjoy fiction more than fact, they enjoy telling of things created purely from their imagination.

When the child is four, it is time to begin a pattern of slightly stronger direction and to teach reasonable rules of behavior. The exuberance of the four-year-old must

be controlled, at least to a limited extent, and most parents find they must exert a substantial amount of firmness. The four-year-old should be given opportunities to test his abilities and to expand his limits of exploration out-of-doors and around the neighborhood. This will provide an outlet for the aggressiveness typical of this age.

Children this age experience extremes of behavior: from insecurity to obedience

Studies of child development and child personality growth indicate that in the early years of life, most human beings experience extremes of behavior, typified by insecurity and rebelliousness and followed by periods of obedience and a strong desire to please. These fluctuations in behavior seem to be nature's way of helping the child develop and expand his capabilities. As he gets older, these extremes of behavior diminish to a more even pattern representative of an attitude of accepting life and the rules of living.

The child of four is able to control himself, and will cooperate and participate in group activities

By the time the child reaches 4 1/2 years of age, he will have moved into another phase of behavior that will be less volatile and challenging to the parent. The child at this age is improving in his control and in his ability to cooperate and participate in family affairs. He is highly motivated toward conversation and will want to discuss many things with his parents. This is especially true if he is on easy terms with his parent or guardian. The child will be full of questions and anxious to receive explanations. This presents an unequal opportunity for teaching, and alert parents and child care providers will want to take full advantage.

Watching for Fears and Apprehensions

Many children develop fears that need attention from the child care provider

Many children, during the age from four to five years, develop fears and concerns that need attention from parents. It is not unusual for children at this age to have nightmares and cry out in the night. Some children under stress bite their fingernails and urinate in moments of emotional excitement.

All in all, this period from four to five years of age will prove to be a challenging time for parents and child care providers involved in early childhood education programs. It is a time for parents to be thoughtfully concerned about helping the child develop good habits of cooperation and participation in family life. It is a

time for firmness mixed with loving understanding. There must be an adequate amount of both with special attention to loving understanding.

It is time for a certain amount of firmness mixed with loving understanding

Children constantly need parental love, but the four- to five-year-old is in particular need of the security and assurance that he is loved by his parents. Review your relationship with your child. Show some extra affection and concern at this time. Love is a powerful force in teaching and learning . . . use its power to advantage.

Vocabulary Development for the Four-Year-Old

During the time that a child is four to five years old, child care providers should strive to develop his vocabulary as rapidly as possible. Research indicates that between the ages of two and five years, a child adds approximately 500 to 600 new words each year to his vocabulary, indicating the great receptiveness that preschool children have for learning. During this final year before the child enters school, you will want to use this receptive power to help him build a rich vocabulary.

The four-year-old is particularly fascinated by words. He is learning to express ideas and feelings through use of a vocabulary. At age four, most children have learned to talk quite clearly. Four-year-olds are avid conversationalists, and parents should use this great interest and desire to converse to maximum advantage. Throughout this book, we have attempted to emphasize the great value in stimulating vocabulary development. At no period in the child's life is this more important than from the ages of four to five.

Be sure to speak clearly and simply to the child

Along with his vocabulary development, parents should be conscious of helping a child to enunciate properly. Be sure to speak clearly and simply to your child. Do all that you can to help him speak in complete sentences. Encourage him to express himself clearly, but to do so by using complete sentences.

Age four is a time of great natural curiosity

Age four is a time of great natural curiosity. Parents should use this to maximum advantage in building vocabulary and understanding of the world surrounding the child. Be sure to continue to expand his contact with books, and do all possible to help him have satisfying experiences so that he will have a good outlook and attitude toward them.

The four-year-old is full of questions

Parents will find the four-year-old full of questions. There will likely be times when the child will ask more questions than the parent may consider reasonable. Be sure that you are not impatient with this questioning. It is part of his great curiosity, and you should be doing what you can to cultivate an attitude of wanting to know rather than discouraging him by refusing to answer or ignoring his questions. Be sure to respond and make explanations to questions as simply and directly as possible. Your behavior should encourage mind-stretching conversation. Keep the conversation flowing.

The child of this age is anxious to explore through touching, tasting, smelling, hearing, and seeing

The child at this age will be particularly anxious to have multi-sensory learning experiences. He will explore through touching, tasting, smelling, hearing, and seeing. Be sure to encourage this and expose him to all of the senses as a means of bringing his mind into contact with the real world around him. Most parents underestimate the capability of four-year-old children. The child at this age is much more capable of absorbing information than many parents realize. Be sure to help your child take maximum advantage of this time in his life when he will be eager to learn and will be filled with curiosity and enthusiasm.

Attaining Social Maturity through Play with Others

Give the child as many opportunities as possible to meet other children of the same age

Most children will be entering the formal school structure shortly after they turn four. It is therefore important that parents pay particular attention to the social maturity of the child. Give your child as many opportunities as possible to meet other children of the same age. Provide opportunities for sharing, playing, and working together with others. This will help the child make a better adjustment to school life. It will help him develop wholesome attitudes toward, and have respect for the rights and feelings of others.

Introduction of Reading to the Four-Year-Old

When the child is four years old, parents should encourage him to review the letters of the alphabet and

to practice drawing the letters with a pencil or crayon. He will develop some hand-eye coordination and control as he traces or tries to form a rough approximation of letters. Use the letters as you say them so that his sense of hearing can also make impact upon his mind. Through these multi-sensory experiences, he will reinforce the knowledge he has and will be able to apply it as he builds upon this background. Parents should continue to teach and to review, through practice, the sounds the letters symbolize. (You may want to reread the material in previous chapters to make sure that your child has a solid background in this area.)

The child will develop hand-eye coordination with drill in writing numbers and letters

After the child has completed a good review of the letters of the alphabet and understands some of the basic sounds of the letters, he is ready to be exposed to a few simple words and to learn that the alphabet is the building material for words and that written words are useful in his life. The formal and systematic teaching of reading is a job for professionally trained teachers. In this book it is suggested that a few word recognition experiences be provided. Some children will want more word recognition experience, and others should wait for further maturation. Help your child to see words as symbols for objects with which he is familiar. Do this casually, and do not try to teach by formal instruction.

Expose the child to a few simple words; teach him that the alphabet is the building material for words

When the child's interest is high in some simple object or in some possession of interest to him, take the opportunity to form a simple three- or four-lettered word. Show him the letters and remind him of the sounds for them. Through this, you can present to him for the first time the idea that a group of letters stands for something. For example, if the child has a cat or dog in which he has a great interest, you may, at an appropriate time, introduce him to the word "cat" or "dog." This can be followed by pictures that may have captions identifying the objects.

Create a responsive environment so that the child will casually pick up the meaning of written words

Casual Exposure to Printed Words

In introducing the child to his first experience in reading, be very casual about it. Present the concepts as incidentally and naturally as possible. Slip an idea in here and there in your daily experiences with him.

Create word lists that are labels of familiar objects in his environment

This is a good time to print some simple cards and label a few of the common objects around the home. Put the word "bed" where he sleeps at night. In a casual way, show him the word and remind him of the letters that he has already learned which make up that word, and also remind him that the word represents the name of the thing he sleeps in at night. Do the same with other objects, such as the toys he plays with, the eating utensils he uses, and so forth. This is all part of creating a responsive environment around the home to expose the child to ideas in a very casual and natural way, free from pressure but full of rich and meaningful experiences at any time the child is ready to absorb a new concept.

Parents should be extremely cautious to teach these few, simple, introductory, word-meaning ideas in a manner that will avoid any possibility of the child's developing an adverse attitude toward reading. Remember that it is important to teach causally and almost incidentally a few simple words at a time. (Do not demand or insist in any way that a word be learned. Simply expose the child to the word and let him absorb what he will from casual contact. His formal teaching will come at school.)

Coordination with Television Programs

The lessons on word exposure and preparation for reading in such TV programs as "Sesame Street" will supplement the casual approach of introducing reading to the child during the four- to five-year-old period. Follow up the TV lessons with some relaxing play, with the child using the subject matter that was presented. Words commonly used in television word recognition drills are as follows:

Play word matching games with the child

big	love	stop	bird
me	street	bus	mop
telephone	danger	pat	the
exit	pet	up	fun
ran	us	I	school
walk	is	sit	you
let	spot		

Parents should develop their own word lists that are labels for common objects found around the home and

familiar to the child. Keep word cards on the objects and refer to them often when working and playing with the child.

We cannot over emphasize the importance of attitude and outlook toward learning

Another word recognition skill is to help your child match a printed word on a card with an identical word from a set of printed words. Let him practice this, but help him by giving clues. Try to make a game of it while remaining casual and relaxed. Remember that his *attitude* and *outlook* toward the entire matter of reading is more important than his merely learning a word.

You may want to expose the child to some decoding skills as shown on TV programs. For example, you may want to teach him to recognize and point to the first and last letters in a word. Words, to a child just learning to read, are strange symbols that, he is told, have meaning. He must learn to pronounce a printed word when he sees it. He needs to learn how to use certain clues to help him know what the word is. By looking at the consonants and vowels and by thinking of the sounds they make, he will have some clues to help him. By looking at a word he knows, such as "man," he can learn to recognize the word "ran" simply by substituting the letter and sound of "r" for the letter "m."

Drill in decoding related words will help the child acquire a useful reading skill

Later, as he advances to where it will be useful, you can even show him how to recognize the first and last words in a printed sentence. This may also be done from a book while you read to him. Practice in decoding related words will help the child acquire a useful reading skill. In addition, the child should be taught to recognize words in sentences. Help him during reading and story-telling times to find words that he has learned. (You should use the incidental approach and avoid any temptation to get into formal teaching.)

Teach that the space between words shows where one word ends and another begins

The child should be taught to recognize printed words in a sentence by realizing that the space between words indicates where one word ends and another begins. Practice this element of learning with him. The test will be when he can look at a sentence and point to each word in it. He should also be taught that all reading moves from left to right. This is usually learned incidentally, but parents should be careful to point it out and make sure that the child understands.

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The ability of four- to five-year-old children to learn a few simple reading skills will vary considerably from one child to another. Parents should continue to teach, using the play and game approach. We cannot overemphasize the importance of attitude and outlook toward reading. Parents will help the child immeasurably by teaching through the incidental and casual approach that reading is fun. The child is not mature enough to have a rigid situation thrust upon him or to receive reading instruction as it is taught in school. We are seeking exposure, using the home or child care center as a responsive environment for teaching through the casual method.

By implanting seeds of interest, progress can be made without a negative reaction

Some children, by the time they reach the age of five, will have a reading vocabulary in excess of 500 words. Others may not respond at all but will be ready a few months later. The important thing is to follow the dictates or mood of the child and avoid all pressure. A vocabulary of 500 reading words is exceptional, and parents should accept whatever can be attained from a program of instruction described in this book.

The best strategy for parents to follow in reading instruction is one of casual exposure, following the systematic teaching of the alphabet recognition skills described in the previous chapters. If the child responds with great interest and quickness in reading words (using the letter recognition and sound decoding skills), be alert to take advantage of the readiness and learning ability that he displays. If, however, the response is somewhat confused, the parents should use the "soft sell" approach, avoiding pressure and teaching according to the response of the child. By implanting seeds of interest, the parent can make progress without negative reaction.

A formalized and systematic approach to teaching reading is not recommended at this time

Making Sure The Child Is Ready for Reading Instruction in School

You will note from the foregoing discussion that a formalized and systematic approach to teaching reading is not recommended at this time. Our purpose is to prepare the child for formal reading instruction and to expose him to opportunities to begin reading if his apti-

tude and progress are such that he is ready. With the type of background information and alphabet recognition skills presented in our pre-reading program, your child should enter school with skills and capabilities far exceeding that of the typical kindergarten child.

Avoid confusing the child with a varied and competitive approach

Systematic and formalized reading instruction should be left to professionally trained teachers. We should avoid confusing him with a varied approach. We have thus limited our effort to attaining certain pre-reading goals and to teaching word recognition, decoding, word matching, and casual exposure to a few limited words.

If a gifted or talented child is ready to learn to read, the parent will be able to recognize this. We recommend that each child be encouraged to move along as far and as fast as he desires. A few children will actually be reading from these experiences. However, the typical child will only be able to master the pre-reading goals and attain the skills that we recommend as being valuable to him as he enters school.

The child should be encouraged to move along as far and as fast as he desires

Teaching Relational Concepts

During the period from four to five years of age, parents should strive to give the child a solid understanding of a number of relational concepts. The mastery of these will provide mind-stretching experiences as well as basic skills that will be useful in school.

Through the use of educational games and other teaching opportunities in the home and neighborhood, the parent and child care givers should strive to help the child understand such concepts as "same" and "different." In addition, the child should learn to understand size relationships such as tall and short; big, bigger, and biggest; small, smaller, and smallest. He should be taught some quantitative relationships such as more, most, all, less, some, and none. This basic teaching in relational concepts should move on to include positional relationships such as up, down, beginning, end, first, next to, around, under, over, on, and through. The child should be taught distance relationships such as near, far, close to, and away from. Then he should be taught temporal relationships such as first, last, before, after, next, beginning, and end.

Teach relational concepts: big, bigger, biggest; same and different; tall and short, etc.

Use actual objects to illustrate the concepts

In teaching these relational concepts, one should use concrete illustrations as much as possible. For example, in teaching the size relationships of big, bigger, and biggest, the parent should use actual objects to demonstrate. Understanding the meanings of these words will be much easier for the child if this is done. Positional relationships -- under, over, above, and below -- can easily be taught.

It is important to strive to lead the child's mind to complete mastery of these concepts. The mind-stretching experiences of mastering these concepts and the benefits derived there from will be most useful in school.

Reminder:

In the interest of avoiding awkward sentence structures, "parents" has been used to refer to parents, guardians, child care givers and other child care providers.

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Words

There is no need to rush this activity. If you find it consumes too much time, do half of the alphabet one day and the other half another day or carry it over for several days. Never carry on an activity longer than she is interested.

- Get a large piece of co struction paper and using a bold marker or crayon have the child draw two letters each of the entire alphabet.
- As you move along, review the names of the letters with her.
- Using child-safe scissors have her cut out the letters in rectangular shapes to form "cards" of the individual letters.
- Start to form simple words with the letters like "dog", "cat" or "toy".
- Then let her form the words by finding the letters herself. Let her concentrate on her name, the name of the street she lives on, or the name of her town.

Strolling/Walking

Take advantage of your child's eagerness to explore and learn about his environment. Now is a good time to review an earlier activity where the idea of left and right was taught. Make sure this concept is thoroughly understood

- Draw a neighborhood map with street names, some addresses such as neighborhood friends and other landmarks clearly shown.
- If he will be walking to a neighborhood school make sure he knows how to get there. Using the map point out to him how you travel from street to street.
- Help him to get firmly in his mind a picture of your neighborhood and the necessary directions to get around in it.
- With the map in hand and a place in mind take him on a neighborhood tour and let him try to find his way by using the map.

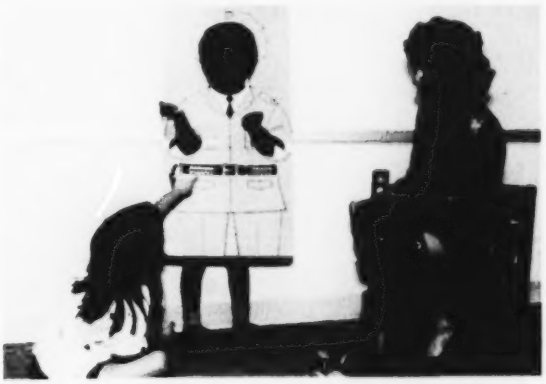
Basic Concepts

These are some of the basic concepts that are important for the child to have mastered before entering school. Comfort in using these and other related concepts will ease the transition from home to school.

- As the child is out playing with a group of children, line 3 of the children up and ask "who is tall, taller, tallest?"
- Ask 3 children to each find a stone, then place them together and ask "which stone is big, bigger, biggest?"
- Point out 2 trees to the children, ask "which tree is short and which is tall?"
- Using the same trees, ask "which trunk is thicker and which is thinner?"
- Draw 3 lines in the dirt or sand, 2 straight and one wavy. Ask which are the same and which are different. Ask why.

Conversation

Vocabulary development during the last year prior to school is important. The child will be open to learning at this time. It is necessary to continue to challenge and encourage without pressuring him.



- Make up stories with the child.
- Start out with a few sentences to begin the story. Encourage him to use his imagination by asking him what he thinks will happen next.
- Ask him to explain to you the story from one of his favorite books or movies.
- Pretend that you are one character from a favorite book, and he is another, and have a conversation between the characters.
- Let a group of children act out a play of a favorite story.
- Help him to enunciate properly and use complete sentences.

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13 Additional Learning for Four- and Five-Year-Olds

This chapter is for four- to five-year-olds who have mastered the previous chapters but need an additional challenge. It offers abstract reasoning and problem-solving experiences for children who have demonstrated complete mastery of the curriculum content of this book. Parents are advised to review the progress of the child and spend additional time on this chapter only if it is apparent that the child is ready to proceed with the learning experiences that follow.

Developing Reasoning Power through Classification Practice

Children this age should be able to classify objects and groups of objects as to color, size, thickness, etc.

The child should be given opportunities to work with groups of objects, to sort them out according to various types of classification. She should, for example, practice classifying objects according to their size. She should then have groups of objects that she can classify according to their functions or the purpose for which they are used. When presented with a group of geometric shapes, she should be able to classify them according to their forms as well as to other aspects such as color, thickness, etc.

A typical exercise in classification practice is to give a child a can filled with nails, screws, nuts, bolts, and washers. She first arranges the objects into five groups. She then puts the finishing nails (those with very small heads) in one pile and the box nails (those

with larger, flat heads) in another pile. She then classifies and sorts them further by size. She may even be taught to classify them for outside use (those that are galvanized) and for inside use. She goes on to do the same with the screws, nuts, bolts, and washers. This experience helps her organize and make decisions according to what she can see and how she can reason about the functions and properties of the objects.

The child should know the functions of objects

An additional exercise to develop this ability should be presented to the child by having a number of like objects, except for one. The child is then stimulated "to reason" as she approaches the question: "Which of these things belong, and which do not?" Several items of wearing apparel and one object such as a spoon or dish will provide a basic experience in this regard. (The child should be able to see that the object used for eating does not belong in the group.) As she practices this, she should be given more complex groups of objects to identify and classify.

The child should then have practice in classifying objects on the basis of more than one characteristic. She should be able to see a group of geometric shapes and classify them by color, size, shape, and thickness. The complexity increases as she learns to identify, for example, a group of triangles that are yellow and of the same size and thickness. Other sorting and classifying experiences can easily be created by the parent through use of items around the home.

Learning Experiences in Arithmetic for Four- to Five-Year-Old

Learning arithmetic can be made easy for a child if care is used to adjust the level of difficulty to the child

Possibly no other subject area in the school curriculum causes more children to feel inadequate and instills a dislike for learning as much as mathematics. Since arithmetic is such a systematic and logical subject, it lends itself to organization and arrangement into regular instructional sequences. Therefore, learning arithmetic can be made easy for the child if care is exercised in observing the response of the learner and adjusting the level of difficulty to her needs.

The fundamental precept of adjusting the level of difficulty to a point where approximately 80 percent of

the responses are correct should indeed apply in the teaching of arithmetic. Children should be success oriented in arithmetic with even more care than in any other subject area. The most frequent mistake of a parent is to eagerly press the child into levels of difficulty far beyond her capability. This will cause needless stress and will make arithmetic seem more difficult to her.

Help the child have wholesome experiences so she will have a positive attitude toward learning

As you stimulate the child's mind to casually attain a few basic mathematical understandings, be careful not to move too rapidly. Resolve to help the child to have a wholesome experience so that she will be positive in her attitudes and will begin with the impression that arithmetic is fun.

Strategy of Teaching

You can teach addition and subtraction as you work and play with the child

At this point you should review the level of attainment of your four-year-old. Go over the material in chapter 10 and make sure that your child has attained the counting skills and learned the recommended number symbols. Review the specific skill capabilities outlined in chapter 10 and patiently work with your child on them before proceeding to the recommended material that follows.

Teaching Addition and Subtraction

As you enjoy games together, devise ways for her to solve simple subtraction problems

You can teach addition and subtraction as you work and play with your child around the home if you will be conscious of opportunities to stimulate her thinking about numbers. In placing knives, forks, and spoons on the table as you prepare a meal, be sure to involve your child in the activity. Ask her to add two additional spoons and then get her to tell you the total number. Follow this by indicating that three spoons plus two spoons equal five. Use concrete illustrations such as this. Let the child have manipulative experiences that will help her think arithmetically. She will soon get the idea that simple addition is the same as counting and that simple subtraction is just counting backward or in reverse. By having the casual approach used on her, she will learn addition and subtraction without being aware of her efforts.

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Teach addition and subtraction symbols

Place objects on the living room floor when you have playtime with your child. As you enjoy games together, devise ways for her to solve some simple subtraction problems. If, for example, you are playing with 10 blocks, spread them out in an orderly fashion on the floor and follow through the logic of concluding how many blocks you have after you subtract three from the total group. Go over a number of subtraction combinations in this way to provide the child with a broad range of experience in thinking numerically as she works and plays.

Help the child bridge the gap between merely counting and adding or subtracting

After you have determined (through play experiences) that she has the skill to solve simple addition and subtraction problems, you may want to begin to teach games in which she can quickly solve simple problems using addition and subtraction signs ("+" or "-"). Through continuing practice with printed cards, she will respond immediately after thinking through the solution. You should offer this opportunity only if the child has been successful in the previous experiences of working with addition and subtraction problems by counting certain objects. Keep in mind that it is much more difficult for her to read one number and then another and mentally arrive at an answer to a problem.

You must help her bridge the gap of *merely counting* objects and then adding or subtracting and being able to *understand the written numerals* and then adding or subtracting. Do not press your child to obtain the latter skill unless she has done well in the previous activity and unless she is obviously enjoying the stimulation. Remember to apply the 80 percent correct response principle here, making sure that you adjust the level of difficulty so that eight out of 10 responses are correct. This method is extremely important in teaching arithmetic, particularly for the preschool child.

Help the child to realize that we are surrounded with mathematics in our daily lives

Watching for Teaching Moments Outside the Home

You should be watching for opportunities to stimulate the thinking processes of the child in experiences outside the home. Watch for numbers and other items on road signs as you travel in your car. Help her realize

that we are surrounded with mathematics in our daily lives. Teach her in a manner so subtle that she will be learning arithmetic without realizing she is doing so. In this way, her skills and mental capacities will grow naturally. This experience will be particularly pleasing for her if you are clever in your approaches and if you keep the level of difficulty adjusted to her unique circumstances.

Opportunities will abound for casual, incidental, and natural methods of teaching arithmetic

As you look at magazines, books, and illustrated materials, watch for opportunities to teach arithmetic. Show her such things as a mother animal with her offspring or a train with cars attached and talk about the numbers involved. Opportunities will abound for the casual, incidental, and very natural method of arithmetic instruction we advocate in this book if you are aware that yours is the responsibility to stimulate the mind of your child with these subtle approaches. Many of these kinds of natural experiences will provide the readiness for a more formal use of arithmetic with written number symbols.

For some children, the challenge of learning from lists of written addition and subtraction problems may be appropriate at this time. Such formal practice sessions will not by any means be the proper approach for every child. You should, however, progress to such activities if your child is showing high promise and great interest. Let the child's response tell you what to do. Most of all, be very careful not to generate negative attitudes or create a failure complex. Keep in mind that there is plenty of time and that it is not essential that your child master simple addition and subtraction at this age. Teach with love, care, and optimistic recognition and reinforcement for whatever progress the child is ready to achieve.

Be careful not to generative negative attitudes or create a failure complex

Learning to Reason through Arithmetic

Be sensitive to the child and as aware as possible to her thought processes

Because mathematics is almost pure logic, our purpose in early childhood education is not only to teach valuable skills that can be used in school but to develop the cognitive powers of the child and help her to build a more powerful intelligence. When a child is four years of age, child care providers should create experi-

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ences for the child to think about problems and to mentally project outcomes and solutions.

In your daily play and work activity with your four-year-old child, try to follow her thought processes. Particularly in the area of arithmetic, be alert to diagnose what her problems are if she is having difficulty. Strive to be sensitive to your child and as aware as possible of these thinking processes by talking about how she arrives at solutions to problems and challenges you give her. If you are keenly aware of your child's learning difficulties, you may get a valuable clue that you can use as a key to helping her over a hurdle in learning.

Using Several Senses in Teaching

Be particularly careful to use a multi-sensory approach in teaching. This can be done in teaching arithmetic, especially with children who are having difficulty in learning. Many experts recommend, for example, the use of plastic or paper numbers. The child's tactile sense can be used as an input to her mind if she gets the "feel" of numbers by pasting them on squares if used as a part of your daily playtime.

Use a multisensory approach in teaching; have the child use all of the five basic senses

After she has created her plastic or paper numbers, you can add to the tactile experience by having her place a number of objects beside the actual numeral. For example, three buttons could be placed on the floor under the plastic numeral three. The child who is having number and arithmetic difficulties could, in this way, uses her sense of touch and her actual manipulative ability to give further input into her mind as a means of reaching an understanding about quantities represented by the numeral symbols.

Let your child give you problems to solve

To help the child build her ability to reason and use logic in problem solving, give her experiences in creating problems for you to solve. Have her present number equations to you by placing on a table or the floor a group of three buttons and then (spaced a short distance away) a group of four buttons. Let her ask you how many there would be if you combined the two groups. Your response would demonstrate through analysis of the two separate quantities and through counting procedures how you arrive at the answer.

Additional experiences for Advanced Children

For children who apparently demonstrate great interest and considerable aptitude in arithmetic, parents should move on to teaching equations. Such equations can be written on paper with a blank to be filled in. For example, you may want to give the child practice in addition problems where the answer is supplied but one of the key numerals is missing. By writing 6 + =9, you introduce the child to simple equations that will be stimulating if she enjoys this particular type of exercise. You may want to go on where three numbers are added to equal a larger number. For example, you could present an equation such as: 3 + 2 + =9. (The child would then be stimulated to supply the answer of the number "4" in filling out the blank number.)

If the child has mastered number concepts, give her simple equations to solve

Such experiences with equations can even be demonstrated with objects on the living room floor. Merely substitute a number of objects for the written numeral symbol and have the child pick up the number of objects and insert them in the blank space in the equation. Such experiences are particularly useful for children who have aptitude and interest. Most four-year-old children will likely not be ready for such an experience at this particular time. In keeping with our desire to help every child attain her full potential and advance as far as she can when ready, these suggestions on equations are presented in this book as an enrichment activity. Be very careful as you experiment with equations. Use them only if you learn that you will have success and little frustration.

Group Games in Arithmetic

For those homes in neighborhoods where children can play and learn together and for children in child care centers, some group games using arithmetic to develop logic to solve problems can be devised. For example, a game of baseball could be played wherein children advance around the bases by responding correctly to arithmetic problems. Three errors on a side would be three "outs," and the other side would come to bat. Obviously, parents sponsoring these types of

Simple games that involve arithmetic can be devised for the child

group activities will need to adjust the level of difficulty to the abilities of the children. It will require some insight to recognize that some children are not ready for advanced problems but will have to be given a problem equal to that particular child's ability to answer.

Many other games can be developed, limited only by the imagination of parents and children. Since children love to play and enjoy group activities with others, it is wise to take advantage of this natural inclination to provide another opportunity for the child to learn naturally and incidentally as she enjoys her association with others.

Although the concept of "zero" is hard for the child to understand, it can be taught

Teaching the Concept of "Zero"

In teaching arithmetic reasoning, parents may want to introduce and teach the meaning "zero." Strange as this may seem to adults, young children seem to have a particularly difficult time understanding what zero means. It is hard to teach that it means "nothing" because you cannot demonstrate it as easily as showing that three buttons or three blocks represent the numerical symbol three.

As you work in your counting and number games with your child, you may want to place a number of buttons or marbles in some pans or dishes on the floor. While doing this, try putting one empty dish out. Show your child this dish (after she has counted and answered your questions concerning the number of objects in the other dishes) and ask her to tell you how many buttons are in this dish. When she replies that there "aren't any," use this particular opportunity to explain that "zero" means "none" or "nothing."

Child care givers should often change roles with the child so she can do the asking

Some children have difficulty in understanding that $6 + 0 = 6$. This can be illustrated in a more concrete manner by having six buttons in one plate and no buttons in another. You can then illustrate that the six buttons in the one dish and zero buttons in the other equal a total of six. The same type of demonstration can be used in teaching subtraction where zero is involved. By using such demonstrating opportunities, you can teach this simple but often difficult concept.

Give the child opportunities to develop problems and equations using addition, subtraction, and zero in

the thinking and answering processes. Parents should take care to change roles so that the child has the pleasure of developing questions and providing the leadership in some of the games. She will be more motivated to learn if she has an opportunity to be the leader once in a while. This will also give her the chance to think and to formulate in her mind some questions and equations. Give her an opportunity to participate in this way and help to provide all of the variety you possibly can.

Review and Practice in Arithmetic Skills

It is important to review frequently the number concepts that the child has mastered. Remember that this can be done while riding in the car or when she is outside the home with you in the grocery store or around the neighborhood. Use these opportunities also to help her review as well as learn new concepts. Until these basic skills are firmly rooted in the mind of the child, she will need constant opportunity to use her abilities and exercise her mental processes in so far as mathematical reasoning is concerned. Give ample opportunity to practice and demonstrate what she has learned, and be sure to praise her and to recognize her accomplishments.

Use every opportunity to review the arithmetic skills of the child

Teaching the Days, Weeks, and Months

In chapter 10, we suggested that you introduce your child to the concept of time. After she has had considerable experience in arithmetic reasoning, she should be ready to learn more about how we record time and the terminology we use in telling days, weeks, and months. Since the child has some ability with numbers, she will now be able to look at a calendar and be given some instructions on how we record and keep track of our days.

Teach the child how to record and keep track of time

Help your child understand that time is valuable. Talk to her about the life span of different living things. Explain to her the length of time that most human beings live. Explain the expected lifetime of her favorite pet. Through use of an encyclopedia, you may be able to get some valuable information that will be useful in

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describing how time is measured. You may also be able to get some information that will be useful in explaining the life expectancy of different animals.

Explain the concept of time: day and night; weeks; months

After you have had opportunities several times to have incidental conversation on the concept of time, teach your child that a day is made up of the period of daylight when she is awake and the period of time at night when all of the family are asleep. Explain that a new day has been born each time she wakes up in the morning. You may want to explain how the sun furnished light. (The solar system is too complex to explain at this time.)

The important concept to get across is for her to understand what a day is. Be sure to take as much time as necessary in this explanation. Over a period of several days, you may want to talk to her about it and call her attention to the fact that it is early morning, midday, afternoon, evening, time to go to bed, and then time to get up in the morning to begin another day.

Through a conversational approach to this over a period of time, the child will soon get an understanding of what we mean when we talk about a day. She should then receive some explanation that will help her understand that there are seven days in a week. Help her to be conscious of the fact that we begin a new week on a particular day, and through the activities of the home, we go through a routine in a week, culminated by a weekend and the beginning of another time period that is somewhat repetitious of the previous one.

Teach your child the days of the week

If she has not previously learned them, teach her the names of the days of the week and help her through practice and drill to be able to name them in proper consecutive order. You may want to help her become familiar with certain things that are unique to your home that have to do with work that is accomplished on a particular day of the week. All of this will help her gain a concept about time.

Teach the months of the year

After the child understands the concept of days and weeks, teach her through use of a calendar to understand the concept of a month. Show her that there are 12 months in a year. Explain the seasons of the year and call her attention to the fact that in her short lifetime there have been changes in the weather and in the

climate outside that have affected her life and the routine activities of the home. Although it is not essential to do so, you may want to help her learn to repeat in consecutive order the names of the 12 months. You should not spend too much time on this because in the mind of a child, a month is indeed a long time. She has not experienced very many of these periods of time in her short lifetime. The important thing is for her to begin to get the concept about time and how it is measured.

Teaching How to Tell Time

It will be useful for the child to know something about telling time by clock or watch

Teaching children of this age to tell time by the clock is difficult. It will be useful, however, to teach the child to recognize the hours and tell the approximate hour by identifying the number to which the small hand on the clock is pointing. Since she now has an understanding of number concepts and can read numbers, this will not be particularly difficult to do. With today's digital clocks, parents may also use a digital timepiece to show by comparison how a clock with hands keeps track of time.

The child should understand the value of telling time

It is somewhat difficult for a child to understand how the large hand on a clock functions in indicating time. She must be able to count by fives and to grasp a number of abstract principles before the full ability of telling time will come to her. It is recommended that the child understand the value of telling time and attain the ability of telling the approximate hour by looking at the face of the clock. (This can be done by your calling her attention to the fact that the small hand is the hour hand.) However, with the exception of children with extremely high interest and considerable ability, teaching the actual skill of telling time may be delayed until after the child has entered school.

Teaching Measurements and Measuring

Show the child how distances are measured

Another useful and beneficial activity applying some of the skills learned in arithmetic is to help the child understand and apply various measurements that we use around the home. Since all measurements are

quantitative and involve the use of numbers, this is a natural follow-up activity that will broaden the concepts and basic understandings of the child, at the same time giving her additional opportunities to apply what she has learned.

Begin your activity of exposing the child to the concept of measurement by showing her how distances are measured. Through the use of a ruler or a yardstick, show her how to measure the length of an object that is familiar to her. If you are measuring the length of the kitchen table, for example, point out the numbers and introduce her to the terms of "inch" and "foot." Show her how you can mark the space for one foot or one inch with a pencil, and help her understand that what she has learned about numbers will be useful in this type of activity. You may want to follow this by measuring her height on the wall, using a yardstick, ruler, or tape measure. Give her many concrete experiences in the use of linear measurement.

Introduce the child to the measurement of volume

Next, you should introduce your child to measurement of volume. Most household kitchens have ample devices, and the parent has numerous opportunities to do this. Let her participate in following a recipe from your cookbook. By doing this, she could learn the numbers in your book that indicate certain measurements, and you could help her grasp the idea that another measurement similar to linear measurement is the measurement of volume in terms of ounces, pints, quarts, gallons, and so forth. You may want to give her a problem where she would measure a given quantity of water through application of the knowledge that you presented her.

The child is also ready to learn about the measurement of weight

Your child is also ready to learn about the measurement of weight. If you have a bathroom scales, let her weigh herself and also weigh other objects around the home. Help her realize that this is another important measurement used in our everyday lives. She can apply more of her arithmetic ability through actual experiences that you can plan for her, and she can broaden her understanding and extend her vocabulary at the same time.

Teach measurements gradually and incidentally as the occasion presents itself in the home. Be alert for opportunities to remind the child that we live in a world

where numbers and quantity are important. If it is convenient and useful, you may want to introduce her to the concept of the units that make up our money system. This can be done by showing her various coins and demonstrating how many coins of different value it will take to make a dollar. All such activities will broaden the experience and extend the depth of understanding of your child. Expose her to as many measurements and experiences in becoming familiar with quantities and with the application of numbers and arithmetic as possible.

Teaching the value of coins can be fun

Value of Incidental Teaching

The importance of incidental teaching and casual instruction as it emerges from the natural situation of living in the home and neighborhood cannot be overemphasized. As contrasted to formal and disciplined learning experiences, the casual, incidental method takes advantage of practical teaching moments and eliminates the necessity for discipline and formal study. In teaching measurements and the application of arithmetic skill around the home, the natural, incidental approach will be productive only if the parent is consciously alert to seize upon opportunities.

Casual, incidental teaching is most important to the child's learning

Numbers

Because the numbers concepts seem difficult for many children to understand, it is necessary to review exercises that involve numbers often and in many different ways. Clarity of purpose and patience will help.

- Prepare a snack placing 3 apples in a row on the table, Count the apples with the child; take one away and ask, "How many are left?"; take away another and again ask, "How many are left?"; then, add the 2 apples back to the row and ask "Now, how many do we have?".
- As you set the table say: "We have 3 place settings but 4 people will be here. How many more settings do we need?" Use other variations of this idea.
- On the playground, there are swings to be counted. As you walk there are fence posts and as you drive there are "red" cars to be counted.

Classifying

The child should be given many opportunities to classify objects into groups according to size, shape, color and function. Opportunities abound in everyday activities to reinforce this learning experience. Use it to advantage.

- Place 4 items in front of the child, all having a specific use at mealtime with the exception of one, for example, a dish, a cup, a spoon, and a glove.
- Ask her if there is anything that would not be useful in eating dinner, ask her to tell you what it is and what that object is used for.
- Or use a shirt, a sock , a scarf and a plate, and ask what does not belong and why.
- Let the child separate her toys into various groups of her choosing and have her explain how and why she separated them.

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Calendar

By now the concept of "today", "tomorrow", and "yesterday" should be well understood. It is now time to expand his knowledge of the calendar by creating a full month.

- Draw a large monthly calendar with the days blocked off.
- Have the child help you number each day in the appropriate blocks.
- Each morning, have him " X" out "today" and remark that "today is Friday".
- Draw or attach pictures of events that you know will happen each day.
- As you begin new weeks, point out how certain things happen on certain days every week such as church on Sunday.
- Familiarize the child with the concept of how days repeat each week, and teach her the order of the days.

Measurement

Teach measurements gradually as the opportunity arises. Such exercises will give the child a chance to apply what has been learned about numbers in relation to his everyday life and activities.

- Find two objects that are similar, one heavy and one light. e.g. a plastic toy truck and a metal toy truck.
- Have the child hold each truck, one at a time and ask which is heavier.
- Take the trucks to a scale to show the difference in the numbered weights.
- Weigh both yourself and the child. Explain.
- Provide a ruler and show how to use it. Measure and compare various items.
- Make a height chart to see how much he has grown. Mark his height when him was born and compare that to how tall he is now.

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14 Preparing Your Child for School

As the time approaches for your child to begin his formal schooling, it is important that steps be taken to make this adjustment as easy as possible on him. This chapter will outline some procedures that should be followed in preparing your child for school. It will also include some instructional activities to be carried out by the five-year-old in the home.

Make the adjustment to formal schooling as easy as possible on the child

Teaching Directions and Geographical Relationships

By the time he is ready to enter school, your child should be aware of the geographical relationship of his home to other places in the neighborhood. Moreover, he should have some information about the community in which he lives and how it relates to his neighborhood and home.

Sometime after the child has reached 4 1/2 years of age, begin talking to him about the neighborhood and the community in which you live. Help him find his way to places of interest in the neighborhood. Show him your house number, and teach him how streets are named and how houses are numbered. Help him to gain an understanding that certain places and specific homes can be located because they have addresses. Teach him your family address and help him be able to recall and repeat this without difficulty.

Help the child to gain an understanding of the location of his home in the neighborhood

Explain to the child the concept of the four basic directions of north, south, east, and west. Explain that the sun rises in the east and sets in the west. Make sure he understands that these are general geographical directions which will be important in finding his way in the community and neighborhood. Help him through repetition and incidental reminders to understand the four basic directions by identifying them with certain landmarks that can be recognized from his home.

Explain to your child that when he is facing east and puts his hand out to the left, he is pointing to the north. Explain that directly behind him is west and that by putting his hand out to the right, he will be pointing south. If your child has not learned to distinguish between his left and right hands, you may need to review this casually and incidentally over a period of days until he understands this concept.

Watch for opportunities to teach a sense of direction while the child is this young

Your child will learn that the directions of north, south, east, and west are constant. He should know that wherever he might be, the identification of these basic directions will be important to him. As you go to the neighborhood grocery store, take a few moments to point out the four basic directions so that he will understand that orientation of himself to these directions requires a different identification when he is outside his own home. Watch for opportunities to teach a sense of direction while your child is this young. As you travel with him in the car and as you move about the community, look for additional teaching moments when your conversation can lead to pointing out these important concepts to him.

If you have access to a compass, you may want to use it as a teaching device as you teach direction.

Teaching Your Child to Walk to the Neighborhood Elementary School

Show the child the best route to school

If your neighborhood elementary school is within walking distance of your home and if your child will be required to walk to and from school, you should avail yourself of the few months before he enters school to teach him how to get there and to return home safely. Show him the best route to follow. Walk along with him

to school and back several times. Point out some safe places to cross the street, and teach him awareness of traffic. Be sure to emphasize safety. Help him to become self-reliant and independent in this matter.

Small children often feel insecure in school if they are confused or if they have doubts in their minds about their ability to return home. It is particularly important that the small child enter school with full confidence that he can find his way home without any assistance if necessary. He will feel secure and will find himself confidently oriented if he attains this capability by the time he enters school.

Help the child to be confidently oriented so that he can find the way home from school

Be sure to avail yourself of the opportunity to point out the four basic directions to the child while at the school. From school, you might also point to other places that are familiar to him, such as the neighborhood grocery store, the drugstore, the post office, and other places where you have often gone together. Do all that you can to make him feel properly oriented and secure in his surroundings at school where he will soon be spending a large part of his time.

Getting Acquainted with the School Building

Take your child to the school building

After your child has become thoroughly familiar with the task of finding his way from your home to the school and back to your home, you should take a brief time to help him become familiar with the inside of the school building. From the viewpoint of the child, the school building is an enormous structure. He may feel frightened and lost inside it unless he becomes familiar with the internal surroundings. Some time spent on this will help your child feel more secure when he enrolls for the first time in the school.

Explain about the classrooms and the corridors

Walk around the school building with your child and point out the important places that he will soon be using in his formal educational experiences. Explain about the classrooms and how the corridors serve as "inside streets" in getting from one room to another. Explain the responsibilities of the school principal and the teachers. Show your child the school lunch room and the rest rooms. Help him become familiar with the internal surroundings of the school building before school begins.

Keep in mind that your child will be entering into a new world when school starts. He will be surrounded with friends and competitors in the classroom. He will have many social adjustments to make. If you have adequately oriented him to the physical features of the school and have helped him feel comfortable and familiar inside the school building, he will not have this added burden of adjusting in addition to the social adjustment that comes during the first days of school.

Many children go through a sense of shock and frustration when they enter school

This emphasis upon the orientation to the school and upon finding a safe and secure pedestrian route from your residence to the school may seem to you to be unnecessary. Some children get along very well without this extra type of precaution and preparation. Many children, however, go through a sense of shock and frustration when they enter school. They cry and insist upon leaving for home in the middle of a school day. In extreme cases, they even resort to imaginary illness, bed wetting, and other avenues of psychological escape. Much of this can be avoided if parents systematically prepare the child for entering into the school system. Such orientation and preparation is another safeguard to make sure that the child is properly launched into his formal educational career and that the amount of adjustment and stress upon the child is kept to a minimum. He needs to feel secure and confident. This will be greatly enhanced if the parent takes the time to teach him.

Most schools welcome visits from future school pupils

Most schools welcome visits from future school pupils. If you find that you are welcome, take the opportunity to help your child get acquainted with the kindergarten teacher, the principal, and other individuals in the school. Keep in mind that the school is a very busy place and that most of the staff members are working under considerable pressure. Arrange your visits at a time that will be convenient for the school. Call in advance and adjust your situation to fit the circumstance of the staff members that you want to visit.

Teaching Games That Require Abstract Reasoning

During the summer months before school opens, your child should have an opportunity at this stage in

his development to practice using his intellect to think ahead and project alternative outcomes from possible actions that he might take. He needs to be able to form in his mind what might happen if he does one thing as compared to what might happen if he elects to do another thing. Games such as tic-tac-toe, checkers, and simplified chess are excellent approaches to teaching these intellectual capabilities. After your child has passed the age of 4 1/2 years, you should plan to introduce him to these three games and to teach him through creative play experiences to use his intellect in abstract, situational reasoning circumstances. Between the time your child is age 4 1/2 and the opening of school, be sure to offer him numerous opportunities to match wits with you through use of these games. The following discussion of the games may be useful in your teaching and learning experiences with your child.

Help the child to think ahead and to project alternative outcomes

Teaching Tic-tac-toe

As you introduce your child to tic-tac-toe, plan your strategy to attract his interest and to make sure that he has an enjoyable experience at the outset. It will take a number of weeks to lead your child to a place where he can play this game effectively. Whether he enjoys it and gains mind-nurturing experiences from it will be contingent upon how clever you are in making the experience a rewarding and reinforcing one for him. Be careful not to correct his errors in a way that damages the pleasure of the experience for him. Permit him to win and to have a successful experience, but do not make it obvious that you are being excessively charitable with him. As he learns, he will give you more competition, and the competitiveness can be more genuine. Play the game as often as the child's interest and initiative will permit.

As you play tic-tac-toe with your child, be sure he has an enjoyable experience

Teaching Your Child to Play Checkers

The game of checkers is a bit more complex than tic-tac-toe. Teach it after the child has learned the first game, or teach them alternately. You should explain to your child that he is now growing up and becoming

Try to introduce checkers in a casual way so the child will not feel compelled to play

quite powerful in using his mind. Try to introduce him to the game in a very casual way so that he will not feel compelled to play, but will have a curiosity and a desire to reach this level of competence and sophistication. Parents often have great success in teaching checkers by drawing on paper or cardboard a 16-square checkerboard. By using only two or three checkers on each side, the child is then confronted with a much more simplified approach to the game than would be the case with the full-sized checkerboard and the challenge of managing 12 checkers at a time. By using the 16-square checkerboard and two or three players, the parent and the child can experience the handling of the checkers and learn the rules of the game before using the more complex, full-sized game.

Be sure that the child has successful experiences from the game of checkers

In teaching your child to play checkers, be sure that he has successful experiences. Let him make mistakes without very much instruction from your side. You may casually point out an error at the same time you indicate that you make errors in the game. It will be useful if you can discuss the game with him in a mature way wherein you can analyze the strategy and think through ways to improve. Remember that your purpose is to help project his thinking into future consequences of any actions he might take so that he will learn to envision an outcome of such actions and arrive at decisions based upon this ability to plan ahead in his mind the possible consequences. Let him learn by trial and error with some gentle suggestions from you. Be very careful not to "come on too strong" with instruction, correction, and finger pointing that will decrease his interest and pleasure. The game is for fun and intellectual development. Be sure that you work with him in such a way that he gains this from the experience he is having.

As you move to the larger game of checkers, be skilled in adjusting the level of competition so that he is challenged at the same time that he has successful experiences in winning and in capturing some of your checkers on the checkerboard.

Teaching Simplified Chess

Needless to say, chess is a highly complex game requiring an alert, analytical, and objective mind. It will

be an excellent intellectual accomplishment for your child at this age to learn to play the simplified game of chess. If he has had successful experiences with the previous games, he may be ready for simplified chess.

You may help your child want to play the game by explaining how "grown up" the game of chess is. You may show him newspaper articles written about chess and chess situations diagramed in the newspapers.

Casually teach the rules of the players on the chess board

Casually teach the rules of the different players on the chess board. Practice different movements with him so that he will understand the different movements of rooks, knights, bishops, and so forth. Gradually and systematically introduce him to this very fine game. Be casual and relaxed in your teaching strategy. Do not insist on playing chess unless he wants to. Then, when you do play, make sure that he has a successful experience and that he is permitted to quit when he desires. Watch his responses and adjust your teaching strategy to meet his needs.

It will be quite an outstanding accomplishment if your child at this age learns to play and enjoy the game of chess. Do not be eager to teach it if he has no interest -- for learning chess is not essential. It will be, however, an avenue to further intellectual development if the two of you learn to enjoy playing the game.

Additional Suggestions in Preparing for School

The child should be in good health and ready for the physical rigors of formal schooling

As the time for the opening of school approaches for your child, think through all of the preparations that will help to enhance his initial experiences at school. Check the condition of his health and make sure that he has had the proper immunizations and eye and dental examinations. You will want your child to be in good health and ready for the physical rigors of formal schooling.

Help your child to be tolerant and understanding of others who may not have been as fortunate as he in receiving this program of instruction. Explain the need to be considerate of others. Help your child to anticipate with a positive outlook the new experience of entering school for the first time.

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A Final Word

This manual has described an approach to home-based, early childhood education that teaches without formal, disciplined instruction. The program assumes that the child will increase her learning ability through absorbing what her parent teaches while at play, eating or dressing, helping around the house, or participating in regular family activities. The emphasis has been upon full use of those fleeting teaching moments that rise incidentally as the child interacts with parents and other adults. The book has described techniques and emphasized procedures designed to keep the child constantly exposed to a stimulating, mind-nurturing environment.

The parent and child can build a lifetime relationship if this program is followed faithfully during the first five years of the child's life. The opportunities for observing and contributing to the intellectual growth of the child will create a bond of trust and experience sharing that will continue far beyond the age of five. Let the home become a child-centered place where the parents, guardians, and child care workers will be totally aware of the educational progress through the developmental process of nurturing the infant's intelligence and preparing her for a promising school career.

As the parents learn to employ reinforcement theory and as the reactions to learning efforts are observed, they will become very knowledgeable about the strengths and weaknesses of their child. They will become wise teachers as well as close companions to the child if this program is followed with true fidelity.

As parents, most of us want the finest opportunities for our children. In this aspiration, we often neglect the obvious need to make the home a learning laboratory and a supportive place for developing the attributes desired for a successful life. The home is the most powerful source of stimulation and motivation for the child. This program places the home squarely behind the child's long road to growth into full maturity through making an early commitment to develop the infant's intelligence. This strong commitment at the beginning of their child's life will reap untold dividends for the child and the parents throughout the entire lifetime of their child.

In terms of heritage and true environment for the child, there can be no gift of greater worth or lasting value than that of developing the latent talents of the child to full fruition. This is a gift within the reach of the most humble home with the most limited financial resources. The gift comes from the parents to the child through commitment to teaching as they live, work, and play together, and share many varied experiences. The gift comes from parents who care enough to take the time to provide truly creative play, mind-nurturing conversation, and experience-broadening activity in the home, neighborhood, and community. The gift comes from the parents who teach, with loving concern and understanding, and who realize that feelings and attitudes are of foremost importance. It comes from parents who observe reaction from the child and make wise adaptations to her needs. It comes from parents wise enough to teach each child a love of learning based upon successful experience from birth to age five and beyond.

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INCIDENTAL TEACHING FOR PRESCHOOLERS

Preparing all children to enter school ready to learn is the first of six major goals for American education that were adopted by the President of the United States and the nation's fifty governors. This book is dedicated to assisting parents, child care centers, and schools in the full realization of this first and most important goal.

Schools and head start program sponsors have a new role to play in helping all children to enter school fully prepared to learn. They should persuade all parents of preschoolers and child care center workers to come to school to be taught (in four or five sessions) about incidental teaching and how to use the contents of this handbook to endow children with more powerful intellects so they will enjoy learning.

This handbook has been written for the use of parents and those who work in childcare centers. It describes a teaching technique called incidental teaching as a method of nurturing the innate intelligence of infants and preschoolers so they can reach the full potential of their minds. During the first sixty months of life, as the human brain is rapidly growing in size and weight, those who work and play with these children can help make the difference between a struggling learner who will receive grades of D and C- in school and a strong and confident learner earning grades of B and A-. It all depends on how mentally active these children are during the first months of their lives.

Through applying the principles and techniques of incidental teaching during these early months we can raise a new generation of academically capable children ready to learn and be fully prepared to meet the challenging world of the 1990's and the 21st century.